THE FARMERS' CABINET,

AND

AMERICAN HERD-BOOK.

DEVOTED TO

AGRICULTURE, HORTICULTURE, AND RURAL AND DOMESTIC AFFAIRS.

Perfect Agriculture is the true foundation of all trade and industry.—LIEBIG.

Vol. X.—No. 10.] 5th mo. (May) 15th, 1846. [Whole No. 136.

PUBLISHED MONTHLY,

BY JOSIAH TATUM,

EDITOR AND PROPRIETOR,

No. 50 North Fourth Street,

PHILADELPHIA.

Price one dollar per year.—For conditions see last page

For the Farmers' Cabinet.

Montgolfier's "Hydraulic Ram" for Raising Water.

THIS machine is mentioned by J. H. B. Latrobe, in the second No., Vol. IX., of the Cabinet, and the operation or effect of it is somewhat obscurely described by Reeve & Brothers in the No. for Second month, 1846. My attention was first drawn to this very valuable, simple and cheap method of raising water, by reading the communication of J. H. B. Latrobe, and during the last autumn one of them was made and put into successful operation on my premises; the result was completely satisfactory. This machine is now in operation on Lewis Thompson's farm, in Millcreek Hundred, in this county, giving an ample supply of good water for house use and for stock in his barn-yard, from so weak a spring that, at its distance, no attempt would have been made to obtain it by any other known power. This machine forces about one-eighth of the stream seven times the height of the fall used, or in other words, with a fall of about eight feet for the power, he gets one-eighth of the water, which is forced a distance nearly two hundred yards, rising about fifty-six feet in that distance. It has been visited by a large number of persons, being the first one known in this part of the country; and the probability is, that hundreds of them will be put into operation in this and adjoining counties in a few months. One of my family has just returned from putting one up for Stephen Webb, in Chester county, which, having a strong spring for the power, and seven and a half feet fall, forces about thirteen barrels in twenty-four hours, through lead pipe nearly or quite one thousand feet, rising seventy feet in that distance, giving a full supply of water for family purposes, and to water from thirty to forty head of stock in his barn-yard:—personal observation will satisfy the most incredulous. One of them is in operation on my premises at this time, merely to exhibit to inquirers, but will shortly be put to permanent use at a new house, to save the expense of a well and pump, which it is competent to do in very many situations. The Hydraulic Ram, when properly constructed, is not liable to get out of order, or to require repairs; lapse of time, or muddy water passing through them, may give occasion for trifling repairs, and when these become necessary the machine can be easily detached from the pipes and carried in one hand for convenient repairing. The

same one, by altering a screw-nut, can be adapted to a stream running one gallon per minute, or to one of five gallons per minute, the sizes of the supply and carrying-off pipes being suited to the quantity of water given forth by the spring; and should the spring fail partially, the machine can be adapted to the change in less than five minutes, unless the failure be so great as to deprive the machine of its power.

It is understood that the inventor or discoverer of this power, (Montgolfier, of France,) did not bring his discovery into use for any practical purpose;—I think it was perfected in England. The writer would refer the curious to Parker and Delaplaine's edition of the *New Edinburgh Encyclopedia*, under the head *Hydraulics*, the publication of which edition was commenced in this country about the year 1812, in which will be found a drawing or plate representing this machine, and a description of it; also of another on the same principle, differently applied, by which a common or muddy stream may be used for the power, and spring water forced up for culinary and other cleanly purposes, provided the two kinds of water are conveniently located contiguous to each other. It is said that there has been a patent taken out in this country connected with this latter machine, whether for the whole of it, or only for something which many patentees call an *improvement*, I know not, but this I do know, that the plates representing, and descriptions of, both these machines, have been laying dormant in my house, and probably in the houses of many other subscribers to the Encyclopedia before mentioned, for some twenty-five or thirty years. Those interested can judge how valuable a patent right can be under such circumstances.

Jacob Pusey.

Christiana Hundred, Newcastle Co., Del.

On Manure.

We have been in the habit of considering as *manure* every decomposable or putrescent material which exists naturally in, or is artificially added to, the earths. Thus, the fibrous masses left in the ground, green vegetable substances chopped to pieces and dug in, and the black vegetable portions of heath or moor-soil are in reality, manures. Earths proper, namely—alumine and clay, silex or sand, chalk, phosphate of lime, and metallic oxides are themselves almost insoluble; and can act only, or chiefly, as the bed, or fundamental support of plants: or, to speak more philosophically—the laboratory—wherein the interchange between the laborated products of decomposition and the roots of the plant is carried on. These general truths are equally applicable to garden and pot-culture—there is no distinction so far, between the processes of the florist, the amateur, the nurseryman, and market-gardener—all are included therein.

Our present remarks will not apply to solid manures; the subject which claims immediate attention being the application of liquid manure; a practice which appears to extend with great rapidity. In looking over the weekly publications on horticulture, we cannot but be struck with the earnest recommendations of *fluid manures;* and as it is more than probable that they who look for correct information in such publications, will attach faith to the advice they there meet with, it becomes a duty to investigate the principles upon which this practice is founded.

Mr. Knight, of Downton, was perhaps the first person of authority to whose advocacy we may ascribe the introduction of liquid manure: he employed pigeons' dung steeped in water till the fluid acquired a brown tint nearly as deep as that of porter; and he remained firmly of opinion, that pines, melons, and grapes, were much assisted by a copious use of this aliment. Being prepared from recent dung of the dovecote, he obtained at once a solution of the bile, the urea, and all the saline ingredients of the excreta. Gardeners in general may be presumed to have recourse, of necessity, to the brown drainage of old dunghills; but here the result is a widely different affair, because the mass having undergone fermentation, the gaseous and fluid products have been interchangeably attracted and *re-formed* into new chemical combinations: thus, the urea has developed ammonia during the first active stage of heat, the chief part of which passed into the air; a portion, however, as the mass cools, would sink into the lower parts of the heap or be carried down by rain, and become united with the black, carbonized substance, which is termed humic acid, and gradually ooze through the bulk, forming that brown fluid which is seen in the waste drains and puddles of farm-yards.

The chemical elements disturbed during the fermentation of a manure heap are numerous: the oxygen and hydrogen combine to produce water; other portions uniting with carbon yield acetic acid; and certain saline and hydrocarbonaceous substances filtrate away; leaving a cold, blackened mass, which constitutes the spit-dung of the gardener; a substance composed chiefly of carbon and humus, in a condition fitted to evolve a considerable quantity of carbonic acid.

The *liquid drainage* is then a weak compound of salts of potash, soda, and ammonia; the last being united with so much of the humus as to give a deep brown tint to the whole. To appreciate the operation of this liquid, the chemical reader should test a variety of decayed vegetable matters; such, for instance, as old leaf-mould, very black humous manure, and the brown peat of moors and bogs, by adding a little alkali to each of them. If an ounce of peat-bog or black manure be digested in boiling rain-water more than sufficient to cover the material, little colour will, in general, be extracted; but upon adding, drop by drop, some strong *caustic ammonia*, stirring with a strip of glass after each addition, the fluid will gradually become of a deep full brown; the pungent odor of the ammonia being destroyed till it be added to saturation.

Again, a very little of the brown heath-soil from some parts of Surrey, being so treated, will give intense color to an ounce or two of water. Pearl-ash and soda will produce similar effects, but ammonia is to be preferred. Persons are apt to conclude, that to this brown coloring matter we must ascribe the nutritive qualities of liquid manures; whereas, in fact, it is quite certain that not one particle of the color can enter the spongiolæ of sound, *undisturbed* roots.

Now, if manure-water be weighed, and then gradually evaporated at a gentle heat, to dryness, the weight of coloring matter will be found to be very trifling; and yet gardeners are in the habit of adding much water to this liquid, considering it too strong for plants growing in pots. Having thus, by dilution, reduced the tint to that of pale malt liquor, what activity can be expected from it? Or if such liquid manure be of any avail at all, to what material can we refer its nutritive effects, since it is admitted that the particles of color, minute as they must be, are still too gross to enter the pores of the roots?

To answer these queries by farther experiment, and thus gain a little more light upon the subject,—let a few grains of powdered quicklime be stirred into the colored fluid and suffered to subside; after a few minutes it will be seen that the color of the liquid is lost; that it has become quite pale; while the sediment itself has acquired a dingy brown tinge and a flocculent texture. As a converse of this experiment, let brown peat or black manure be worked up with one-third the quantity of quicklime, and diluted with hot water sufficient to allow of free subsidence. After stirring from time to time, the compound matter will subside, leaving the super-natant liquor nearly devoid of color:—and now caustic ammonia may be added to excess, without effecting any change of tint, the lime acting by more powerful affinity, and fixing the humic extractive in the form of an insoluble humate of lime.

In this way it is that lime acts as the specific reclaimer of waste and barren peat-bogs, rendering them fertile by the *abstraction* and *fixation* of that inert and deleterious vegetable matter which is an antagonist to vegetation. And thus, by an induction from undeniable chemical facts, we begin to perceive that we have long been misled by crude theories and empirical practice.

Liquid manures therefore act by the salts which they contain, not by the coloring solution of humus; and thus, also, we may be permitted to sanction the cautious application of artificially prepared fluids, as for instance "Potter's Liquid Guano," "Humphreys' Inodorous Compound," and other fertilizers, which are neither more nor less than solutions of chemical salts; among the safest and most effectual of which are the sulphate of ammonia, nitrate of potassa (salt-petre,) and sulphate of soda.

Lime is the interpreter of this new and most intelligible theory; for by it the important fact has been ascertained, that, for all the poisonous vegetable extract in peat-bogs, in old pastures, in gardens and soils over-glutted with manure, it exerts the most powerful affinity, attracting the humic acid, not only from alkaline solutions, but from the body of the soil itself, fixing it in a condition of absolute insolubility, and thereby rendering the poison quite innocuous.

Let us not be misunderstood, however; for when pure turfy loam without dry manure is used in pot-culture, the slight tinge of color in the liquid superadded cannot be productive of injury. What we wish to combat, is the false notion, *that the coloring matter is the manure.* The truth must prevail, in proportion as science and faithful analysis extend their influence; yet, while we assert that the chemical salts of steeped manures are the fertilizers, and that if the coloring matter of drainage from the mixen were perfectly discharged by lime not used in excess, the clear fluid would retain its efficiency, we still give the preference to these agents, the products of natural fermentation, over any salts prepared by art in the laboratory.

As an analogy, we would cite the well-authenticated facts of the rapid germination of seeds which have passed through the viscera of birds. The Pimento trees which furnish the allspice of commerce, are quickly raised by berries, thus impregnated by animal

juices. Nature presents numerous similar examples, which art cannot imitate; and therefore we arrive at the inference, that as the naturally prepared liquid manures are the products of a species of slow combustion by which vegetable and animal matters are resolved into their elements, they must be most congenial to plants, as in fact they derive their origin from them.

While thus sanctioning the use of animal liquid manure, we must protest against a dirty and injurious method which we have seen freely practised; namely, by applying fresh cow-dung, stirred up in a tub of water, till it can be poured through the nozzle of a water-pot. The water passes down and conveys to the soil the dissolved salts and liquefied gall of the manure; but a cake of dry, effete matter is deposited on the surface, which prevents the ingress of air and of water. The reason assigned is, that the manure keeps the plant cool! This is a vulgar error which may lead to much mischief.—*Paxton's Magazine of Botany.*

The Caoutchouc or Indian Rubber Tree.

(*Ficus Elastica.*)

The tree from which the Elastic Gum or Caoutchouc is principally obtained, is a native of India and South America. Its leaves are of a bright shining green colour, thick, oval, and pointed, and its fruit somewhat resembling the olive in size and shape, which, however, is altogether uneatable. It grows very rapidly, and is said to attain the height of about twenty-five feet, with a trunk of one foot in diameter. Its usual size when full grown, is about that of the European Sycamore, and it seems to prefer mountainous and rocky situations, being frequently found in chasms and cliffs of the rocks on steep and abrupt declivities of mountainous regions, particularly in the province of Silhet, and in the lofty regions of Pundua and Juntipoor.

The sap or milk constituting the gum is obtained from incisions made through the bark in various parts of the trunk, and is said to flow in greater abundance from those which are made nearest the top of the tree. This fluid which is at first of a yellow white color, without either taste or smell, soon assumes a darker hue on exposure to the atmosphere, and thickens until it becomes solidified and forms about one-third of its weight of the India Rubber, or Gum Elastic, now so extensively employed in the arts and manufactures of our country.

This article was first introduced into Europe a little more than a century ago, and was then only imported in the form of bottles, which were moulded over a form of clay, and afterwards having been dried and blackened in the smoke of the fires over which they were suspended, the clay moulds were crushed and shaken out, and the article ready for export.

The genus of which this tree is a species, is possessed of very diversified and opposite qualities. Some of the species yield a delightfully cool and refreshing beverage resembling milk, as the American Cow-tree, and others the most fatal poison as the deadly Upas of Java; the leaves of one kind being found to be a tonic, others acting as an emetic, while others still are caustic, and all through the various range of different qualities, yielding very profusely caoutchouc.

This gum is of great and growing importance in our manufactures and the useful arts, and may be applied to almost an indefinite variety of useful purposes, being eminently elastic and impervious to water; and on this account is largely employed in the manufacture of sundry elastic and waterproof goods, as elastic bands, braces, galoches, portmanteaus, bottles, catheters, bougies, probes, boots, shoes, coats, carriage-tops, bands for machinery, life-preservers, beds, cushions, chair-seats, door-springs, &c., &c.

It is used in the manufacture of various water-proof varnishes—for the removal of pencil marks from paper, and for numerous other purposes. It has lately been used, with apparent success, as an article for pavements and floorings, after the manner of asphalte. Tubes are formed of this substance, by cutting it into uniform slips of a proper thickness, and winding it around rods of glass or metal, so that the edges shall be in close contact; a piece of tape is then wound round outside it, and in this state it is boiled for two or three hours in water, when the edges will be found to be sufficiently adherent. Pieces of India rubber may be joined by moistening their edges with a solution of it in ether, turpentine, or naptha; or they may be softened by simply boiling them in water, or touching them with either of the above solvents. The parts being, in each case, immediately pressed tightly together, will be found to unite very firmly. India rubber is very soluble in ether, mineral naptha, and turpentine, and in the fixed and many of the volatile oils. It may be procured from the ethereal solution in an unaltered state.

The celebrated patent mackintoshes are made by dissolving Indian rubber in hot naptha, distilled from native petroleum, or coal tar. The jelly-like paste so formed is

then triturated until it becomes quite smooth, when it is pressed through a sieve, and forms a homogeneous varnish, which is applied by a flat edge of metal or wood to the cloth or fabric, properly stretched to receive it. Several successive coats are applied, and when the last is partially dry, the surfaces are brought evenly together, and passed between rollers, by which process they are made to adhere firmly together. The prepared cloth is then dried in a stove room. Next to ether, naptha is the best solvent of caoutchouc. Oil of turpentine dissolves it very readily, or at least forms a sort of jelly therewith, but it dries with difficulty: the solutions made with the fixed oils always remain glutinous. Indian rubber melts at a heat of about 248 degrees, and does not again solidify.—*Farmer and Mechanic.*

Dead Animals.

At all seasons of the year dead animals are to be seen hung up on fences and on trees; and especially is this the case in spring. On every farm where sheep are kept, dead lambs are suspended in the beautiful, blooming, and fruit-bearing orchards—how shocking!—to annoy the sight and smell, and waste the farmer's means. Dogs and cats too are frequently hoisted into view in the same annoying and disgusting manner. If horses, cattle, sheep, or hogs die, they are drawn out of sight, but not out of smell, and are still sources of disgust. Why is all this? If the farmer be so unfortunate or so negligent as to lose an animal, should he be so wasteful as to permit the carcase to decay uselessly in the open air, to the great annoyance of his family and every passer by? Does he not know that animal matter is the best and richest of manure? Animal matter contains every element that is necessary to grow every plant known. In it are phosphate and carbonate of lime, ammonia, carbon, in short, in the best form, all the essentials of vegetable growth. Its putritive power is great, and if added to the compost heap hastens fermentation, and adds greatly to its richness. Whenever a fowl, cat, dog, sheep, pig, horse, or cow dies, let the carcase be cut up and the bones broken, and the whole added to the manure heap. The carcase of a single horse will turn loads of useless muck or peat into manure, richer than any ordinary barn-yard dung. Why then suffer it to decay uselessly and annoyingly? It is true it is not lost, for the gases that taint the air are appropriated by plants; but the farmer who owned the animal gets but a small portion of what should be all his own. Why, then, will he waste the *dead energies* of the horse, when he has lost the *living* ones? If our readers will heed what we say, they will not suffer dead animals to annoy the eye and disgust the nose hereafter. Bury them in the manure heap, add some lime to quicken decay, and charcoal dust or plaster to absorb the gases, and much will be gained to the good appearance of the farm, the quality of the manure, and the quantity of the crops grown; and much to the purse of the farmer. If your neighbour be so improvident as to waste a dead animal, beg it of him, that it may not be detrimental to health and useless to vegetation. Laws should be passed to compel the saving and use of this most powerful of fertilizers, when common sense and decency fail to do it.

Whenever it is desirable to hasten decay, and rapidly turn animal matter into manure, sulphuric acid may be used. This would be too expensive—although the acid is cheap—for farm purposes, but may be employed for the garden, where expense is not so important. It is frequently desirable to have a rich manure in the garden, and it is not at hand. Animal matter put into sulphuric acid will in a few hours furnish it. Every house will supply much refuse animal matter. To this rats, mice, moles, feathers, hair, bones, horns, &c., may be added. If the garbage of a slaughter-house can be got, it should be. All these will soon be reduced to an available state, be inoffensive, and will add great fertility to the soil where used. The requisite quantity of acid may be ascertained by experiment—about 10 or 15 lbs. are usually allowed for 100 lbs. of animal matter.—*American Agriculturist.*

Anecdote of a Rose.—Lee's Crimson Perpetual, or *Rose du Roi*, was one of the many splendid Roses introduced by Mr. Calvert, the nurseryman of Rouen, who has before now made sales to the Hammersmith Nursery of £1200 worth in a single journey. Lelieur, the gardener at St. Cloud, was the raiser, and wished to name the Rose after himself, *Lelieur*. The then minister of the *Maison du Roi*, desired to name it *Rose du Roi*, for the perfection of the Rose was in those days a matter of notoriety. The gardener and the minister were alike obstinate, and the matter was actually referred to Louis XVIII., who decided that the minister was right. Lelieur instantly threw up his situation.

The farms of Belgium rarely exceed five acres, and they support a family comfortably.

Prospects in Virginia for new Settlers.

Proposed settlement of New Jersey farmers in the vicinity of Petersburg.

The following letter to the editor of the *Farmers' Library*, a work which we have repeatedly taken occasion to recommend for its sterling worth, and the April No. of which is perhaps more than usually stored with valuable matter, we think contains many wholesome truths, which can scarcely be too thoroughly looked into by particular sections of our country. With the warm and sunny *South*, are associated in our minds all that is exuberant in nature and delightful to animal enjoyment. How greatly then does it behove those who are located in the midst of these privileges, to inquire with earnestness into the real causes of the comparatively slow progress which has been made—the comparatively small account to which these privileges have been turned within the last quarter of a century. Let the matter be looked into fearlessly and dispassionately, and with a determination not only to discover the true nature of the evil, but also to remedy it, if possible. A knowledge of a disease, is said to be half a cure. Posterity will bless the head and the hand that may contrive and bring into effectual operation the means by which public sentiment shall be so corrected and regenerated, that *labour* shall be viewed as honourable in whole communities, where now it is regarded as beneath the dignity of a gentleman. "*No idle white population* can prosper."—Ed.

Hicksford, Greenville Co., Va., Feb. 12th, 1846.

To the Editor of the Farmers' Library:—

This place takes its name from the circumstance of its being a "*fording*" place on the "*Meherrin*" river, and is the seat of government of the county above named. The surrounding country is flat, and the growth of timber is pine and oak. I did not expect so soon to strike the *cotton* region, but that plant constitutes, here at the end of a day's rail-road journey from Washington, one of the chief staples of the county; hence it is carried by rail-road to the factories at Petersburg, and the surplus thence to the North, where capital, greater industry, and superior intelligence, assisted by the legislation of the country, are levying, and will forever levy contributions on sloth and ignorance. By superior intelligence, I do not mean that there are not, in the slaveholding States, men, very many men, of bright and cultivated intellect, excelling in vivacity and force, men of the same relative standing toward the masses, to be found in the North—not at all! When I speak of the superior intelligence of the North, I refer to the *masses*, to the great body of voters, who *prevail at elections and control the legislation and shape the policy of the country!*

Suppose it were possible, by some magic power, to lift up this whole county, and place it in the midst of Pennsylvania, or New York, or Connecticut, or Massachusetts! Imagination can scarcely conceive a greater transformation than it would undergo, in the course of a few years. The portraits of Hecate and of Hebe present no greater contrast than would the pictures of what it *is* and what it *would be*. The land is naturally good and easily tilled, with a rail-road for transportation of produce at the rate of five cents a bushel for corn, and eight for wheat, with great water power, which in New England would give employment to many more people than now inhabit this county, all of whom would be *non-producing consumers of agricultural produce*.

Oak wood is cut and brought and delivered in the village for $1 50 per cord, and pine wood is delivered at the rail-road depot for *seventy-five cents!* You may judge, therefore, of the cost of labour. The land around sells from $1 to $3 or $4 an acre. A gentleman residing here has lately offered 1500 acres, within two miles of the rail-road, for $4 an acre, on one, two, and three years' credit, with all necessary buildings, even an ice-house, and a great quantity of wood, and oak and ash timber. River low grounds, that with indifferent cultivation will yield from forty to fifty bushels of Indian corn, sell for $12 to $15. Surely it behoves those who are invested with power to rule over the destinies of this naturally glorious region of country, to renounce the miserable blighting spirit of *party*, and to strive with one heart to discover and banish the moral incubus, whatever that may be, which sheds its withering blight over the face of this land. You would imagine that in a country where houses are going to ruin, where fields once arable and fertile are abandoned to wood, and the wild tenants of the woods coming back to reinhabit them, you would see every man at work, struggling night and day to resist the progress of dilapidation, as "a brave man struggling with the storms of fate;" but instead of that, it is a rare thing to see a white man labouring systematically at the plough, through the whole country. The taverns and country stores are filled with young men, apparently half educated, and altogether unused to personal labour—not brought up in a fondness for books, and with no means at hand to indulge it, apparently the genteel but impoverished descendants of opulent and honourable ancestors—men of high cultivation and chivalry, with whom these old States so abounded before and at the time of the Revolution.

A difference in estimating the *value of time* seems to constitute the great distinction between Northern and Southern men.

Here time seems to press like a burden, and the question is, not how it shall be turned to account, and how much can be made out of it, by the most incessant and sagacious exercise of all our faculties, but how the burden shall be thrown off, or made to sit lighter! For that purpose recourse is had to small gatherings in stores and taverns, and to frivolous amusements. There they soon form the *habit* of smoking and of drinking, without at first perceiving the destiny to which they lead, until at last they are caught like the *fly in the spider's web!* Then, alas! when too late, their fate is revealed—their doom is sealed, and there remain no possible means of escape. This is the result of defective education. Be it your duty, then, Mr. Editor, to inculcate upon every farmer's son, that nothing is more honourable than *labour*, and nothing so precious as *time*. How much more honourable would it be to a young man whose family has been reduced from affluence to poverty, to seize the handles of the plough by day, and devote some hours at night to increasing his *store of knowledge*, than to be riding about the country, running away from himself and from listlessness! Talk of labour, either of the body or the mind, as degrading or dishonourable! Is it degrading to be able "to adorn the earth and to bring its productive power into action—to apply the material substances of the earth to reasonable use, convenience and ornament—to expand and improve the human mind—to cultivate and strengthen the moral power! No product of the vineyard, the field, or the sea, however aided by inventive art, will furnish a welcome repast to one who sits in listless idleness on a downy cushion, from breakfast time till dinner. The day labourer who sits down to his coarse meal, has a pleasure to which the listless idler is a stranger."

Virginia can never be regenerated until *these principles are taught in the schools.* Education must have a practical direction. Farmers must force legislators to look less to party objects, and more to the bearing of the laws on the formation of the character and the development of the capacity of the rising generation for practical purposes. Is it not self-evident that *no idle white population can prosper?* To induce white men to labour, you must cause labour to be esteemed honourable. *The public sentiment must so pronounce it*—that public sentiment is formed by education. "As the twig is bent, the tree is inclined." Moreover, though labour may be esteemed honourable, that is not all: to make it profitable, you must give it *intelligence.* True, the labour of the ox is profitable, but what would it avail if man were not at the handles of the plough! But how much depends on the man's *mind*, whether it be rude and boorish, or spiritual and cultivated! For an illustration of the difference, see the difference between the houses, the tools, implements of war, and the means of conveyance used and enjoyed by the savage and the civilized man. There is something of all this difference in the growth and efficiency observable between the people of different States. In Massachusetts, where the whole mass of the population is educated, and where *not* to labour usefully, and efficiently, and steadily, is deemed *dis*honourable, the land which here is worth $3 an acre, would be worth $100 an acre. Look at the progress of population, and of actual power in the Government as between Virginia and Pennsylvania! In Virginia, education and the circumstances under which they are reared—which may truly be said to constitute one's education—lead young men, naturally and without any fault of their own, to be ashamed of personal labour in the fields. In Pennsylvania, a young man who does not labour at something useful loses caste. Well, with these opposite moral systems, these two commonwealths start together in the great race of development and growth, say in 1790—Virginia with her broad territory, her fine climate, her water-power, her mines, her numerous and long navigable rivers, her fine scholars, her brilliant orators, her ardent patriots, her gentlemen of truest chivalry, and ladies with their fine silk stockings and charms that would melt the heart of stoicism itself! And where do we find these two States at the expiration of half a century? They *begin*—Virginia with a population of 748,308, and Pennsylvania with 434,373, and in fifty years they end with, Virginia 1,239,797, and Pennsylvania with 1,724,033—where will they be in half a century more, unless by some more enlightened system of legislation, Virginia should do something to bring her immense resources into play!

These resources are not unknown to the people of other States, but there is obviously something which resists the force of her natural attractions. What is it? *A sign, however, has arisen in the East: New Jersey farmers* are inquiring for lands in Virginia, in the neighbourhood of Petersburg, a place which possesses great advantages in its water power and its vicinity to the Chesapeake. The Agricultural Society of Petersburg, animated by a few enlightened spirits, have taken the subject in hand. I send you their Report, which it may be well to pre-

serve, as it may, in time to come, form an interesting starting point in the history of an agricultural settlement that could not fail, by the influence of its example, to produce the happiest effects on the agricultural interests of that neighbourhood. Who, in fact, can tell the benign results to which these incipient measures may lead?

Let me close this hasty letter by a few lines from one who spoke in parables of wisdom:

"Remember that time is money. He that can earn ten shillings a day by his labour, and goes abroad, or sits idle one-half that day, though he spend but sixpence during that diversion or idleness, ought not to reckon *that* the only expense. He has really spent, or rather thrown away, five shillings besides."

It is but fair to add, that this village and vicinity enjoy the benefit of cultivated society. The presence of such as Dr. Scott, the President of the Senate of this State, O. A. Browne, Merritt, and others who live here and hereabout, would be sufficient to give it that claim and advantage. The owners of land do not sufficiently reflect how much the value of their property, as well as their own enjoyment and the welfare of their families depend on good schools and good society—in a word, on the *reputation of a neighbourhood*—for it may have its reputation as well as an individual. If infested with thieves, or what is as bad, made up in good part, of men of licentious and dissipated habits, no matter what may be the fertility of the land or the advantages of markets, or of health; prudent men who are looking about for places to settle themselves or their sons, will eschew such neighbourhoods. They may do for what are in the slave States called "quarters," to employ surplus force, but will never attract gentlemen who wish to secure enjoyment and happiness for their families. He remembers the proverb, that "*A rotten apple injures its companions.*"

Viator.

Report in relation to the probable immigration into lower Virginia.

The committee to which was referred the Resolution of the Petersburg Agricultural Society, adopted on the 27th of December last, in relation to the probable immigration into Lower Virginia of a number of farmers from New Jersey, offer the following Report:

That they have regarded the subject as well worthy the attention, not only of this Society, but of Lower Virginia at large, whose prosperity could not fail to be promoted by the settlement of industrious Northern farmers within its limits. From the knowledge possessed by the committee, of the tide-water portion of the State, they believe it to be unsurpassed in natural advantages. The climate is mild and genial, and generally salubrious; the soil is easy of culture, for the most part of good quality and susceptible of rapid improvement, and in many places even of extraordinary fertility, with the means of its restoration, when exhausted, nearly always at hand; the surface of the country is penetrated by a number of large, navigable streams; and the best markets in the Union are accessible with but little inconvenience; the various agricultural products of the middle States are capable of being grown to the greatest advantage, and all the fruits of our country attain the highest perfection. Throughout this portion of the State good lands may be bought at the cheapest rates, according to their situation—say from three to ten or fifteen dollars per acre—much less than the prices of lands above tide-water, especially in the counties lying along the base of the Blue Ridge, and at a still greater disproportion to the prices of lands further north.

Your committee would be rejoiced to be able to offer sufficient inducements in our own immediate section of the State—that is to say, in the counties contiguous to Petersburg—to the consideration of those farmers of New Jersey who propose to emigrate to Virginia. The committee have made a number of inquiries, and have heard of many farms, and in some instances of large bodies of lands in Chesterfield, Prince George, Charles City, &c., which would be disposed of by the proprietors on reasonable terms. Some of these lands possess distinguished advantages. The price varies, of course, according to the locality and the state of improvement to which they have been brought; but inconsiderable in every instance, your committee believe, when compared to their intrinsic value, and to the prices of lands in New Jersey and Pennsylvania. The committee have received a particular description of that part of Prince George bordering on the Appomattox river, between Petersburg and City Point, in which its advantages are believed to be by no means overrated. The City Point rail-road on the south side of the river, and the rail-road from Port Walthall to Richmond on the opposite side—to say nothing of the river itself—afford facilities for the transportation of all marketable produce almost from the farmers' doors. Your committee, however, have not deemed it necessary to submit any minute descriptions of the several localities

which have been brought to their notice, and conclude by recommending to the meeting the adoption of the following Resolution:

Resolved, That the Agent of the New Jersey farmers be respectfully invited to call at Petersburg on his visit to Virginia, and that the members of this Society be requested, individually, to offer him the attentions due to a brother farmer, and to render him such aid as may enable him in the best manner to accomplish the object of his mission.

Petersburg, Feb. 6th, 1846.

Fruits.

According to my observation horticulturists have experienced as much or more trouble and disappointment with *pears* and *plums* than with any other fruit. Slow to grow, the pear tree seems to lead a precarious life, subject to blight and barrenness, which it is as difficult to account for as to prevent or cure. Yet what fruit have we to excel the seckle pear. From some facts which I have seen but lately, apparently on good authority, I am inclined to think that, like some animals, the pear tree becomes hide-bound, and that like them also good scrubbing and cleaning, to open the pores and promote free perspiration, would greatly contribute to their health. I have lately met with the following statement, which seems highly worthy of attention. It is known to all who know any thing of botany, that the bark of a tree when divided horizontally, presents three parts; the *liber* or inner bark, which lies next to the wood; the cellular tissue or *parenchyma*, distinguished in the bark of a tree by its fine green colour, but colourless in the bark of of the root; and lastly, the *epidermis*, or outward bark, which is the universal covering of every part of a tree. Now the experiment to which I refer, to ascertain the effect of removing this rough hardened *epidermis* or outside coating from the trunk and limbs of a very large and aged pear tree, was this: the limbs or branches of the tree, as is often the case in Europe, were trained espalier fashion, or horizontally along the west wall, the branches extending in the most perfect order on each side of the large trunk. The stem or body of the tree was cleared of the *rough* epidermis entirely, and the branches on *one* side also were treated in like manner. The branches which extended on the other side of the stem, had only every alternate branch stripped of the rough hardened epidermis. Previously to this the tree had for many years ceased to bear fruit, except occasionally one or two at the extremity of the upper branches. The first season after the above operation the foliage assumed a more healthy appearance on the decorticated branches, and in the course of the second year many fruit buds were formed, which afterwards produced fruit of very good quality, while the branches which were suffered to remain with their hardened epidermis, continued barren. Adjoining this tree was another of the same age, which was sickly and barren. From this every alternate branch was cut off and their places supplied by grafts of different kinds of pears, all of which bore well, while the original branches continued barren. Frequent applications of soapsuds would doubtless have secured a yet higher degree of health and fertility. I have observed in the garden of the late John Willis, at Oxford, in Maryland—one of the best practical horticulturists I ever knew—that the bodies of his bearing pear trees were—to use almost the strongest figure I can employ—as smooth, as clean, as polished, and as fresh-looking as the arm of a beautiful young bride when just stripped of its glove to receive the wedding-ring. The truth is, disguise or shy it as we may, young trees require as much watching and cleaning, washing and nursing, and to undergo as many vermifugent operations as young children do; and those who cannot make up their minds to bestow strict and careful attention upon both, had better make up their minds not to get either the one or the other; for in both cases they well deserve the stigma which should always be affixed to cruel and unnatural parents who wilfully neglect their young ones.

J. S. Skinner.

Hay and Fodder Crops.

Hay is now quoted in New Orleans at $26 per ton. In the river towns above, it is still higher. The hay crops in the North and West were very light this past season; so light were they, in many places, that distress amongst the stock must have ensued, had not their agricultural journals pointed out to the farmers the means of remedying the evil—by sowing corn and oats mixed; drilling corn alone, so thickly as to cover the ground; sowing millet, and other fodder crops; and by cutting up all the fodder they feed out, by running it through a cutting-box. Until the next year's crop comes in, hay will continue to rise in our markets.

We can do much to regulate the price, by doing as our Northern neighbours have done—sowing oats, millet, &c. It is the extreme of folly in any planter to buy hay,

or even corn. Bermuda grass will cut double the weight of hay to the acre that any grass in the North or West will. Crab-grass makes excellent hay, and a great deal of it; and a good crop can be had after cutting a crop of oats or millet. Even bitter coco makes good hay. In no part of the world do oats succeed better than in Mississippi; the Egyptian (winter) oats, when sowed in September, afford capital grazing all winter, and will yield, if the ground is suitable, and they have been well put in, forty to sixty bushels per acre of oats, weighing thirty-eight to forty-two pounds per bushel. Millet is an excellent fodder crop.—*New Orleans Commercial Times.*

For the Farmers' Cabinet.

James Gowen's System of Farming.

Mr. Editor,—It is with some reluctance I again trouble you on this subject, especially in view of having already treated it as far as my sense of delicacy would permit, it having assumed through the interference of your correspondent, H. S., somewhat an affair of my own, in which light did it really stand, I should be the last man to appeal to your readers for justice or approval—I feel too secure and independent in my own position to trouble the public with any affair of mine. But this is a matter which concerns the public—I mean the farming interest. It was for its promotion in general, and for Virginia farming in particular, in my chapter on Farming, addressed to General Richardson, that I incurred the animadversions of H. S.—how candidly and fairly he dealt with the subject, is of no consequence to me personally, but to the cause of agriculture it is, to my thinking, a grave and serious question. How lamentable it is, that there are to be found at this day among the tillers of the soil, some who with their eyes open to the improvements in other departments of art and industry, not only obstinately refuse all aid or instruction tending to lighten their toil and advance their prosperity, but positively wage offensive warfare against every man and everything that exhibit an enlightened practice or a novel improvement.

Superadded to the disinclination I feel to notice H. S. further, I have other causes of excuse, growing out of a recent deep affliction, and a continuous severe illness—which with most men would justify a total indifference to everything save their own afflictions and infirmities—I have to grieve the loss of a most lovely and interesting boy, who in a few hours illness, in the very bloom and freshness of health, was by a sudden stroke of that inscrutable Providence, which we are made to fear and magnify, translated to the abodes of angels, who while living, seemed fitting in beauty and loveliness for such associations without the preparatory hand of death. This severe trial deepening the channels of a disease that has for a long time baffled all medical treatment, unfits me for the task of following up an anonymous writer, such as H. S., and who, had I been less zealous in the cause of agriculture, I should through a sense of self-respect, not have noticed—his first article bearing on its face sufficient evidence of its being unworthy my consideration.

H. S. assumes that my report tc the Committee on Farms, as published in your June No. for 1845, was thrown out by me to the public, and therefore he had a right to take exceptions to the management on my farm. If this was so, had he the right to garble and quote only my outlayings, without showing the work and produce consequent upon the expenditure? But I did not in fact place that paper gratuitously before the public, no more than I did the communication addressed to General Richardson. The report on my farm was elicited by the Committee on Farms, appointed by the "Philadelphia Society for promoting Agriculture," by whom it was published. As a member of the Society, I complied with its requisition, and in accordance with a sincere desire to withhold nothing that might subserve the cause, contributing, as I ever have done, my humble mite to the general agricultural fund. But if I and others shall be treated so unfairly—as may with much force be charged against H. S.—then am I free to say that the Cabinet will in future exhibit fewer Reports on improved farming.

Another egregious error has been perpetrated by H. S., that is, that the amount in dollars and cents, say $6,724.50 is claimed by me as profits on the produce of my farm in 1845. This is a perversion of the plainest meaning. I neither hinted at this item as being profit, nor claimed it to be. I did not in summing it up, subtract even the wages, lest it might give the semblance of net proceeds in the view of profits. When H. S. paraded my annual outlay for wages in one year, without showing corresponding work that might justify the outlay, I took occasion to show, and did it in all truth and sincerity, the crops I raised and housed, with their value, in the same given time, so as every farmer could judge for himself whether the outlay was extravagant or wasteful, in view of the work and hands it would take to raise and gather so much hay, grain, corn, potatoes, and other roots, with the care of such a herd of cattle, and the management of a

dairy that produced over $1400 worth of milk and butter in one year, and challenged him to show what he had done proportionably in the same given time; but this he has not shown, nor has he had the courtesy to tell me his name or ask me to view his farm, stock, and management; a privilege I accorded to him.

I said that in feeding, I had neither used corn nor oats, nor did I throughout the year 1845, and this I can prove by such testimony as would obtain in a court of law—I bought Middlings of Messrs. Joseph Lea & Co. that year for 45 to 50 cents per double bushel; this feed with finely cut timothy hay, was fed to my horses, and part mixed with the slop for the hogs, which had also when fattening imperfect ears of corn and small potatoes steamed for them, and out of this account of my manner of feeding, H. S. has manufactured his remark, that "*Mr. Gowen fattens his stock altogether on corn cobs.*"* This year I feed chopt corn and sometimes oats and rye; as mill feed became exceedingly scarce and high. I do however feed cobs also, but not in the sense as H. S. has it, by way of deriding me—I have a machine for grinding the corn and cob together, which I have used very freely throughout the last winter, and up to this present time.

In conclusion, Mr. Editor, I would take occasion with your permission to state here, to such of my agricultural correspondents as are among your readers, that if I have neglected them of late, my excuse will be found in the bereavement I have to mourn, and the feeble state of my health.

Respectfully, JAMES GOWEN.

Mount Airy, 1st of May, 1846.

MILKING COWS.—A late English paper says that Mr. Harrison, a farmer at St Helen's, Barnsley, having had his cows regularly milked in what he conceived to be rather a mysterious way—was not a little surprised, upon going into his farm-yard the other day, to find two of his pigs, sixteen weeks old, standing on their hind legs, and sucking one of the cows, which stood as quietly as if one of the domestics had been performing the operation in the usual way.

Newcastle County Agricultural Society.

THE following Report of a Committee to prepare a list of Premiums, has been handed us for insertion in the Cabinet. They have evidently given a good deal of reflection to the subject.—ED.

THE Committee appointed to make out the premium list for the ensuing fall exhibition, have added several premiums to those formerly offered by the Society, and deem it proper that they should briefly state the reasons that have influenced them in this course.

The objects of these Societies are, or should be, not only to advance the cause of agriculture generally, but at the same time to exert a favourable influence, morally and socially, on all those engaged in rural pursuits. Merely to increase the profits of agriculture in dollars and cents, falls far short of what should be the aim of these Associations. It is not enough that the improvement of stock or the increase of crops should alone be the result—that some fine cattle, horses and sheep, should be assembled at the Annual Exhibition, or that the Committee on crops should be able to report large products as the yield of a few carefully cultivated acres. However laudable and desirable the improvement of the different breeds of stock, it is but *one* object out of many deserving encouragement, and it may be doubted whether it has not generally attracted an undue portion of interest, and been allowed to share too largely in the premiums offered by Agricultural Societies.

We see in the history of many Societies, and we think generally, because of the limited sphere of their action—year after year a diminished and diminishing interest—a want of zeal in the cause even on the part of those who admit it to be a good cause, and finally in many instances they are only sustained by the labour and trouble—the tax on the time and the pockets of a few, who struggle on year after year to get up the Annual Exhibition, or lacking such steadfast and zealous friends, the Society is allowed to go down altogether.

The first object, in the opinion of the Committee, in order to success and general usefulness, should be to interest all the industrial rural classes in the objects of the Society; let it embrace in its action objects that appeal directly to all these—that will naturally call them out and bring them forth—no matter whether they be the owners of a single head of stock—no matter whether they have big crops to report, or an acre of ground to grow any crop on—still as connected with rural life, as engaged in some capacity in agricultural pursuits, they should be present; should be allowed to participate and take a part. Independent too, of the objects of giving these Societies a popular form in order to the greatest good, it is but *justice* to extend the premiums to objects that bring them within the reach of all.

The Society has heretofore offered a premium for the best farm in the county: your Committee has offered, in addition, one for the best garden cultivated by a farm labourer and his family, having also reference to the

neatness and comfort of his abode. As premiums are given to farmers who produce great crops or raise good stock, and which do not come within the reach of those who may have the situation of manager upon the farm, and by whose skill and industry the result may have been in great measure produced, they have offered a premium to the best farm manager. They have given another premium to the best farm labourer, having reference to his skill in ploughing, sowing, mowing, &c., and his general industrious and good habits. As the relation of tenant is one occupied by many of our best practical farmers, and as many young men coming forward are likely to enter—before becoming freeholders themselves—under this description of tenure, and as good examples should be pointed out as well as rewarded, the Committee have proposed a premium to be given to the best farm tenant.

Small as are the sums the Society has been able to offer, can it be doubted they will be desired and sought for? that a generous emulation will be created to bear off the Society's diplomas, designating the successful candidate as excelling all others for the particular merit for which he receives the diploma? Can any doubt that a young man, for instance, receiving such a mark of distinction, as the best farm labourer, might not with such evidence in his possession as furnished by the Agricultural Society of Newcastle County, obtain the best situation and the highest wages to be had, or perhaps the situation of a manager of a farm, or possibly be enabled to command assistance to start him at once as a tenant.

If the owner of the best cultivated farm should have cause to be proud of the compliment of a premium, even though assisted in gaining his end by ample means and resources, would not he who gained it in his little garden patch and the comforts that with daily toil he had made to surround his humble dwelling, unaided by any means save his own strong arm and faithful heart, have equal and indeed much greater cause to be proud of his triumph?

Your Committee has also proposed, having the same objects in view, important changes in the manner of the Exhibition. That is, they propose the Exhibition and Ploughing Match shall both occupy but one day, instead of two—that all the exercises, including the reports, the address, the dinner, &c., shall take place on the Exhibition ground, in the open air, in the presence of all who may be congregated there—that the day may be passed by all those having a common pursuit in social intercourse in giving and receiving information, in examining farm stock and farm implements, in witnessing the Ploughing Match, and in listening to reports and addresses, not forgetting the free collation, which, however plain, yet in abundance, must be sufficient for all. Nor must the expense of the humble repast come out of the funds of the Society—these must all be given to the last cent in the way of premiums; a small voluntary contribution on the part of members—a draft on the larders and orchards will furnish all that will be required in this way.

It is proposed that immediately after the stock, &c. is assembled, the Committees shall at once examine and begin to make their reports, which shall be read from the stand, that a short address occupying a few minutes, shall be made after each report, calling attention to the object reported on, and the merit of excelling; thus while the eye is delighted with the rural beauty and animation of the scene, the mind may receive instruction, and the heart be made to sympathise yet more warmly with virtuous actions. It is proposed, with the above view, that several gentlemen of the clergy, members of our judiciary and bar, distinguished strangers, connected with agricultural pursuits, and others, be invited to be present.

The Committee cannot doubt that the exercises of the day will be such as to make it one of great and general interest, and that all in the end will redound to the honour, happiness, and dignity of our calling; and as "men cannot work always," it is a fit occasion for a holiday, an agricultural anniversary, in which looking back upon the past, the sons of toil, who have so well borne the heat and burthen of the day, may find cause to encourage their hopes and stimulate their energies to further efforts.

It is sincerely to be hoped that our brother farmers in every part of the county, will bring forward their stock, the products of their orchards, dairy and garden—that they will feel themselves called on to do so—for there are few among the farmers of Newcastle county who urge at this time the poor and selfish reason, that "they have no time for such things," or that "they have ploughing enough to do at home." On the contrary, the feeling with the intelligent agriculturists of our county is decidedly favourable and friendly to the objects of the Society, even among those of them who have so far refrained from taking an active part. But let them give more support by their *acts*, by their *deeds*, and let not such worthy citizens be content with looking on—they are men for action, prompt, energetic and efficient action, in their own private affairs—let them not be content by merely en-

suring the profits of their profession; let them seek its honour and advancement, and to extend to their children, and to the rising generation generally, the favourable influences to be derived from such associations.

JAMES CANBY,
C. P. HOLCOMB,
BRYAN JACKSON,
JOHN JONES,
WILLIAM TATNALL,
Committee.

Examples of Improvement.

I HAVE spoken of the preparation of the land, by culture, for the deposit of the seed, under the heads of ploughing, subsoiling, paring, deep-stirring, scarifying, and harrowing; but there were two processes going on in Cornwall of so peculiar a character, that I deem it proper to detail them.

1. *Tehidy.*—The first was at Tehidy, the residence of Lady Bassett, under the direction of an intelligent and accomplished agriculturist, a gentleman well established in the principles, and familiar with the practices of agriculture, in the best cultivated districts of Scotland, and who was employed not merely to put the home-estate under a proper course of management, but, by example, counsel, advice, encouragement, and rewards, to assist and induce the tenants on the property to abandon the objectionable and profitless modes of husbandry which they had long followed, and introduce a better system, which the experience of the most improving and best farmers in the country had sanctioned.

An extensive tract of land on the seacoast was underlaid, about three inches below the surface, with a compact bed of flint stones, of four and six inches in depth, and might indeed be very properly called macadamized. Vegetation on such land was almost hopeless, for the mould, or vegetable matter, on the surface, had little depth, and no plough or cultivator could penetrate this obstinate mass of stones. But this farmer undertook to remove with pickaxes this entire mass of stones, and had accomplished a considerable tract when I had the pleasure to visit it. The piles of stones lay as thick, and very much larger, than cocks of hay, upon the field, preparatory to their being carted away, for the making or repairing of roads. Under this layer of stones was found a soil which could be brought into, and under proper manuring, would liberally reward, good cultivation. The Cornish men, who, in the capacity of miners, are accustomed to face difficulties of no ordinary magnitude, and will march up against the brazen walls of a copper mine, where they may pick and hammer away for weeks and months without reward, with as much indifference as they would cut away upon a loaf of stale bread, performed this service with a labour and perseverance worthy of all praise. Under this layer of stones was a soil capable of productive cultivation, and the reward was found in the crops which were growing on a portion of the recovered land. After the stones were removed, the land was subsoiled, and a crop of turnips, manured with guano, was taken. The effects of guano, when the land manured by it was compared with a part of the field manured only with the ashes of the furze, were here most remarkable. The exeperiment was a brave, and though labour was at a low rate, it was an expensive one; but as the land was comparatively without value in its former state, the only question in the case was, whether the land, after being redeemed in this way, would be worth the expense of the recovery. Heavy as this expense was, the land became worth a great deal more than it cost. In fact, it was so much land literally created by the process; and its situation, where it was easily accessible, greatly enhanced the value.

2. *Scobell's Farm.*—The other experiment to which I referred, was going on bebetween Penzance and Land's End, on the farm of Colonel Scobell—a farm, in respect to parts of which the culture would seem like going upon a forlorn hope, the land presenting a most forbidding aspect; and yet in its results exhibiting a conclusive test of the best husbandry, by its permanent improvements, and its ample returns for the labour and expense bestowed upon it.

Some parts of Cornwall—where the hospitality of the inhabitants is in an inverse ratio to the quality of the soil—reminded me of a tract of country very well known to many persons in the United States, through which the turnpike-road passes between Lynn and Salem, in Massachusetts, which some one facetiously called the "abomination of desolation." There is this remarkable difference, however, in favour of Cornwall, that, like some old miser, who seeks to conceal his riches uuder an appearance of extreme squalidness and destitution, it is underlaid with inexhaustible mineral treasures, as I myself, in a dress befitting the occasion, with a lighted torch in my hand, descending by the slippery rounds of a ladder seven hundred feet, and traversing two miles under ground, had the gratification—for so I may call it, since I am once more on the surface—to witness. In this part of the country there is little wood, and

no coal, and for fuel, the inhabitants pare the surface of the land, which seems covered with a thick matted moss and heather, and which, when taken off, leaves under it a mixture of white gravel, and black, peaty mould. This being taken off in spots, the country resembles the face of a man reduced to a skeleton, with his skin pitted and blotched all over with the small-pox. It will be understood that I am speaking only of a part of Cornwall, and in particular, the mining districts; for in some parts there are spots of eminent fertility, of which the culture is singularly skilful, and the productiveness nowhere exceeded.

Some of the land owned by Colonel Scobell, is of the description of which I have spoken. He sells the moss and heather—taken off by what a native American may properly call this *scalping* process—at £24 per acre; and then by deep and brave cultivation, and by most ample manuring, at an expense of £10 an acre, he brings this very land into productive cultivation. This is what, in New England, we should call adroitly, and certainly, most honestly and creditably, "turning a penny;" here it is evident it might be designated by a denomination two hundred and forty times larger. After this land is in this way brought to, it would readily let at thirty or forty shillings per acre. After the land has been pared, his process is to drain, subsoil, and manure it, and then he gets excellent crops of turnips, barley, and wheat.

All circumstances considered, the whole management of this farm seemed to me excellent, and it will not be deemed out of place if I now speak of it, since the subject is before me.

The farm embraces an extent of some hundreds of acres, of a gravelly soil, and much of it composed of rotten and decomposed granite rock. It required no small resolution and courage to take such a tract of country in hand, with a determination to make its cultivation profitable; for though I have referred to some cases in which the returns from the sale of the furze and heather upon it were very large, it could scarcely be expected that such a process of profit was applicable to a large extent.

The farm is not in what would be called "pink style," and nothing is done for show. The fixtures, though very convenient, are of a plain and inexpensive character. He keeps 150 head of neat stock; he raises all his calves; he fats a large number of swine, of which he has an excellent breed, being a mixture and cross of the Essex, the Neapolitan, and a boar procured from the United States, which appeared to be a chance animal with excellent points. His cattle are of the improved Durham, which seemed not the kind best adapted to the short pastures of the country, and were not in good condition, having, as he said, suffered from the extreme drought which had prevailed during the summer, and of which it was quite evident the stock in all that country had felt the severity.

His stock are kept in the house the greater part of the year, and fed upon steamed food. His swine are generally killed at one year old, and weigh from fifteen to seventeen scores of pounds; and when kept until two years old, he calculates them to weigh about thirty-five scores of pounds. He has killed those which weighed thirty-six score. They run in the pasture upon grass only, "with no meat,"—that is, no grain or meal—from April until October. They are then put up and fed with steamed potatoes, mixed with barley meal, and given to them while warm; and twelve gallons of barley meal are deemed sufficient for the fattening of a hog. His swine, when put up for fattening, are fed several times a day. Indeed, the hind watches them constantly, and supplies them with food as often as their troughs are emptied.

The cattle are tied in stalls with chains. Provision is made, by a movable trough, to let in water to them, so that they are not turned out except for occasional airing. The stable and barns are upon the side of a hill, and the cattle are kept upon a lower story.

The upper part of the barn is devoted to the washing and steaming of the food; for all of it, the chaff as well as the vegetables, are steamed for the stock. The turnips and potatoes are placed in a large trough or tub, directly under a full current of water, coming from a drained field, which falls some short distance directly upon them, and immediately passes off, carrying the dirt with it. The potatoes are steamed in barrels. The barrels are suspended in an iron half-hoop, and are swung back and forward by a crane. They turn upon a pivot, and have but one head in. They are easily swung round to the trough, where the potatoes are washed, and then filled. A movable bottom, full of holes, is then placed in the open head to prevent the potatoes from falling out, and they are again swung round and dropped upon a platform, and a steam-pipe, opened by a cock, introduced under the bottom, which effectually steams them in fifteen minutes. They are then again attached to the lever, swung round, inverted, the movable head taken out, again inverted, and the cooked contents poured into a trough, and the barrel again filled and cooked as before;

so that from the beginning to the end of the process, they can scarcely be said to be touched with the hand.

The turnips with their tops on, are dropped from the cart into the washing trough, and when washed, are shoved along, and thrown into steaming boxes level with the floor, on which they are washed. These boxes have a false bottom, or grating of iron, under which the steam is introduced by a pipe, and after being sufficiently cooked, the end of the box is dropped, and they are easily shovelled into a cooling box, set still lower than the other, for their reception. The chaff is steamed in a large closet. All the hay for the cattle is cut by a machine, on an upper floor, and easily shovelled into this closet, where it is steamed by a pipe introduced from the common steam machine. Every thing is contrived to simplify and relieve labour. The food is then put into barrows, and wheeled through the passages to the different stock to be fed. The water which comes from the turnips when steamed, is always saved, and being mixed with a small quantity of barley meal, is given to the store hogs. It will ferment if left to stand, and is deemed quite nutritious. Oatmeal is used for the stock when barley meal cannot be obtained, and is deemed much better.

The potatoes and turnips are all washed, and shovelled, and steamed, by a single young woman, stout, healthy, active, and energetic, not in appearance much to my taste, as "a fine gentleman," but entitled to respect for her cheerfulness and good humor, and for the spirit and fidelity with which she performed her humble duty. Her master spoke of her in the kindest manner, and in looking at her in her laborious service, I could not help thinking of that noble line,—

"Act well your part; there all the honour lies."

The manure of the stock is thrown into the yards. Different kinds are mixed, and some hogs kept among it, who, by stirring it constantly, prevent its fermentation. The liquid manure is all saved in tanks, and in some cases, is with great success led over the fields.

With the water obtained from the drainage of the land, Mr. Scobell has created a mill-power, which turns a wheel twenty-eight feet in diameter. With this is connected a threshing-machine, a winnowing-machine, and a flour and grain mill, for the purposes of the establishment; and the same power is applied to a mill for crushing and sifting bones, to a chaff-cutter, and to a grindstone.

From the situation of the ground, likewise on the side-hill, Mr. Scobell is enabled to irrigate portions of his land, which he does with great advantage. From the rocky character of the country, the fences on the farm are stone walls, a very desirable mode of disposing of the surplus stone in the fields; and his gates upon the farm are of iron, at the moderate cost of 7*s.* 6*d.* per gate. They appeared, however, quite too light and frail for endurance.

The fixtures on the farm are of the rudest description, and no pretensions are made to neatness or exactness; but every thing seemed well cared for; and for economical arrangements for effecting the purposes intended, for a management combining the lowest scale of expenditure with the highest scale of profit, few more successful examples have ever come under my observation. The courageous enterprise which could boldly face the obstacles to be encountered in this most inauspicious tract of country, would qualify a man for a much higher military commission than that which its proprietor had borne, and the sound judgment and skill which suggested and planned the improvements, and carried them out with such a creditable economy of labour, are well worthy of commendation.—*Colman's Tour.*

Salt--A Fertilizer.

By C. N. Bement.

The value of salt for agricultural purposes, has long been known both in Europe and in this country, and why it has not been more generally used is beyond my comprehension. More than one hundred and fifty years ago, Sir Hugh Platt, an eminent writer of that day, speaks very decidedly of the benefits which might be derived from the practice of sprinkling salt upon land, and calls it the "*sweetest* and *cheapest*, and the most *philosophical* of all others." He relates the case of a man, who in passing over a creek on the sea-shore, suffered his sack of seed corn to fall into the water, and that it lay there until it was low tide, when, being unable to purchase more seed, he sowed that which had been in the salt water, and when the harvest time arrived he reaped a crop far superior to any in the neighbourhood. The writer adds, however, that it was supposed the corn would not fructify in that manner unless it actually fell into the water by chance; and therefore neither this man nor any of his neighbours ever ventured to make any further use of salt water.

The same curious writer tells also of a man who sowed a bushel of salt, long since, upon a small plot of barren ground, and that

to that day it remained more fresh and green than any of the ground round about it.

Dr. Brownrig, who wrote more than a century ago, in speaking of salt, says, "it is dispersed over all nature; it is treasured up in the bowels of the earth; it impregnates the ocean; it descends in rains; it fertilizes the soil; it arises in vegetables; and from them is conveyed into animals."

In the neighbourhood of the salt works in Great Britain, the value of salt as a manure is well known and acknowledged; it is said "that when wheat and barley have followed turnips on land which had been salted, the ensuing crop has invariably escaped mildew, although that disease had affected all the grain upon the lands adjacent, on which salt had not been used."

It has been asserted that salt is the mother of all manures, as every kind of manure is higher or lower in value according to the salt it produces; and every kind of manure is portioned out to the land according to the quantity of salt or nitre it is thought to contain.

"Nothing in nature," said Hollingshead, "is so powerful as salt to meliorate strong and stiff soils, and also to give moisture to dry ground; it is also a certain destruction to weeds and insects. Besides its efficacy on corn and fallow ground, its excellent qualities in giving luxuriance and salubrity to grass lands, are peculiarly worthy the attention of graziers and the breeders of cattle."

"Soils," says an old writer, "which are subject to the grub, and must be fertilized by common dung, which is a proper nest for the mother beetle to deposit its eggs, must be well impregnated with the brine of dissolved salt, after the dung is first cut up."

The efficacy of salt in destroying noxious weeds, grubs, and insects, is well known in all parts; but a dose sufficient to kill weeds, would also destroy the cultivated crops; therefore great attention and caution should be taken in not applying too much, when intended to fertilize the soil.

The quantity of salt which it would be advisable to use per acre, for the respective crops and upon the different kinds of land, will be best learned by instituting a set of experiments upon every distinct species of grain and roots. Cold, wet land, requiring more, and loose, light land, though it be poor, requiring less. Four bushels to the acre, harrowed in after ploughing, has been found a sufficient quantity on most soils for corn and potatoes; but the best way of all others for ascertaining this point, would be for every one to depend upon the results of his own experiments.

To ascertain the exact quantity of salt which may be necessary for the different kinds of land, and to appreciate the benefits which result from its employment in all the various modes of culture adopted in this country, will require several long series of experiments; we would, therefore, suggest to the executive committee of our State Agricultural Society, that they offer rewards to such persons as shall give them an account of the best experiments with this mineral substance, in the different branches of farming and general agriculture.

The safest way for a farmer to adopt, is to use his salt sparingly at first, and in all cases to leave a small portion of the same land without salt, so that the real effects produced by the salt may be, by comparison, in every instance, self-evident and palpable.

That salt is an excellent manure, experience, the most satisfactory of all evidences, clearly proves.

It is stated in an English publication, that "a farmer in the county of Sussex, some years since, had a field, one part of which was very wet and rushy, and that grass produced upon it was of so sour and unpleasant a kind that the cattle would not graze upon it; he tried several methods to improve it, but to little purpose; at last having heard of the benefits of salt as a manure, he determined to try that; for which purpose he procured a quantity of rock salt, which in a random way, without any regard to the precise quantity, he threw upon the rushy ground, fencing it off from the other part of the field, the effect of which was a total disappearance of every kind of vegetation. In a short time, however, it produced the largest quantity of mushrooms ever seen upon an equal space of ground in the country. These, in the spring following, were succeeded by the most plentiful and luxuriant crop of grass, far exceeding the other part of the field in the richness of its verdure and the quickness of its growth; the cattle were remarkably fond of it, and though the salt was laid on it twenty years before, this part is still superior to the rest of the field."

An interesting detail from the Rev. E. Cartwright, will be found in the 4th vol. of Communications to the Board of Agriculture, England, which is conclusive as to the application of salt as a manure for potatoes. It appears from this communication, that the experiment could not have been tried on a soil better adapted to give impartial results. Of ten different manures which were resorted to, most of them of known and acknowledged efficacy, one only excepted, salt was superior to them all. Its effects, when com-

bined with soot, were extraordinary, yielding in a row two hundred and forty potatoes, whilst one hundred and fifty only were produced from the row manured with lime. It was observable also, where salt was applied, whether by itself or in combination, the roots were free from that scrubbiness which often infects potatoes, and from which none of the other beds—and there were in the field near forty more than made part of the experiments—were altogether exempt. So much for foreign experiments; now let us see what has been done in this country.

From the information which I have been enabled to collect, I am inclined to believe that salt, when sparingly applied, is valuable as a fertilizer, and useful in destroying the grub and wire-worm, which often injure, and sometimes even destroy whole crops; and it has been found by experiments the past season, that the scab, or disease which has proved so disastrous to the potatoe crop in all sections of the country, has never been found upon land that had a proper dressing of salt.

Judge Hamilton, of Schoharie, informed the writer that he had found great benefit from using salt on his potatoe ground last spring. After ploughing he caused four bushels of salt to be sown broadcast on the furrow, upon one acre of the field, and harrowed in. Potatoes were then planted. Part of the field was not salted. Although the season was remarkably dry, the salted acre was observed to maintain a green, vigorous appearance, while the other part of the field looked sickly and stunted. On lifting them in the fall, those potatoes where salt had been applied were of good size, smooth skin, sound, and of good quality, and yielded a fair crop, while those on the unsalted part of the field, although the soil was fully equal to that of the salted portion, the yield was considerably less, potatoes small, and much eaten by worms.

His neighbour had a field of potatoes on the opposite side of the road, soil similar to his own, who planted them the usual way, and the consequence was, his crop was small, inferior in quality, and most of them rotted soon after digging—they were diseased.

Dr. Bogart, who has charge of the Sailors' Snug Harbour on Staten Island, informed the writer that he applied four bushels of packing salt to one acre of his potatoe ground last spring, and thinks he derived great benefit from it. Though the crop was not a large one, the potatoes on the salted portion were of much greater size, skin smooth, and free from disease. The vines were more vigorous, remained green, while those on land of the same quality adjoining, which was not salted, shriveled and dried prematurely; the tubers small and watery; produce less.

E. M. Stone, in a late number of the N. E. Farmer, says: "Last spring I tried an experiment on potatoes. I planted in my garden fifty or sixty hills, placing the sets directly on the manure. To about one-half of the hills I applied a table-spoonful of salt, after slightly covering the seed to prevent immediate contact. I then finished covering. The hills so treated, yielded potatoes entirely free from blemish, and of excellent quality. The produce of the residue was badly affected by rust, or scab, and worms, and was hardly worth harvesting."

Professor Morren also directs attention to the importance of salt as a means of repelling the disease. He recommends the tubers to be placed in a steep composed of 54 lbs. of lime, 7 lbs. of salt, and 25 gallons of water.

Mr. J. E. Teschemacher speaking of the potatoe disease in the N. E. Farmer, says: "I think that salt, lime, and several chemicals will destroy the disease. I prefer salt, because when mixed in the soil it may get into the juices, and circulate through the whole plant. Lime or lime-water would do the same, to a certain extent, but it is far less soluble than salt."

The following very interesting detailed experiment with salt, was communicated in the 9th vol. and 5th No. of the Cultivator, by J. C. Mather, a very intelligent and spirited farmer of Scaghticoke. He says:—"In the spring of 1838, we broke up six acres of sward land that had been mowed a number of years, intending to plant it to corn, but observed when ploughing, that the ground was infested with worms—the yellow cut, or wire-worms, and black grubs:—as we had mostly lost our corn crop the year previous, by having the first planting almost entirely destroyed by the corn worm above described, we expected a like calamity would follow the present year, unless some preventive could be used to destroy the worms. And having frequently and unsuccessfully used all the recommended remedies to destroy the corn worms, we were induced, at the suggestion of an English labourer, to try salt. After the ground was thoroughly harrowed, five bushels of salt per acre were sowed broadcast, leaving a strip of near half an acre on each side of the field, to satisfactorily test the experiment. The whole was then planted to corn and potatoes. The corn on the part where no salt was sown was mostly eaten up by the worms, and was re-ploughed and planted

to potatoes. The potatoes on the whole lot were a good crop, but decidedly better where the salt was applied. I regret that we did not ascertain by measurement the actual result. There was a very perceptible difference in the appearance of the vines during the whole summer. On the part where the salt was sown they grew larger and were of a darker green colour, and continued green longer in the fall than the others."

"In the spring of 1839 we spread on a good coat of manure, and planted it all to corn, except about half an acre of the salted land, which was planted to Rohan potatoes. The Rohans were the best crop of potatoes I ever saw. Seed planted, two and a half bushels, produced over 300 bushels. The largest potatoes weighed 4¾ lbs. The corn was a heavy crop, but was not measured. The summer was very dry and hot; but the corn on the salted land did not appear to suffer at all from the drought, while the other was considerably injured. The salted land appeared always moist, and the growth of every thing upon it was very rapid. We found great difficulty in keeping the weeds down. After three successful hoeings, we were obliged in August to give it a hand weeding. Spring of 1840, intended to have stocked the land down for meadow; but thinking it too rich for oats, planted potatoes without manure. Crop good. The effects of the salt still very apparent. Adjudged to be one-third more potatoes where the land was salted."

"Spring of 1841, sowed a part of the lot to oats, the remainder to potatoes and onions, without manure. The onions were a great crop. The summer was very dry, but they did not suffer, while other crops in this neighborhood, on similar soils, were nearly destroyed by the drought. The oats were a heavy crop, and much lodged on the salted part. The clover grew well, and produced a fine crop of fall feed. This I cannot account for, except by supposing that the salt kept the land moist, or attracted moisture from the atmosphere, as I know of no other piece of land in the town that was well seeded last year; it was almost an entire failure; and the most of the land stocked down last spring has been or will be ploughed up in the spring to be seeded.

"We sowed salt the same spring on a part of our meadows. The grass was evidently improved, the result satisfactory, and we shall continue to use it on our meadows."

At a farmers' conference meeting, held at Marcellus, Onondaga county, in November last, Mr. Brown, President of the County Agricultural Society, said, "he had used salt as a manure with great benefit. He sows it broadcast upon wheat and grass at the rate of three to five bushels to the acre. On grass he would sow it in the fall—for wheat he would sow it just before the wheat is sown. He found that three bushels of salt to the acre on his wheat field, occasioned an increase of seventeen bushels of wheat to the acre over that which had no salt. The soil was a strong loam with a stiff subsoil."

Cuthbert W. Johnson, a distinguished agricultural writer, strongly recommends salt as a manure, at the rate of ten to twenty bushels to the acre, to be sown some two or three weeks before the seed is put into the ground. He says the benefits are as follows: 1st, When used in small quantities it promotes putrefaction. 2nd, By destroying grubs and weeds. 3rd, As a constituent on direct food. 4th, As a stimulant to the absorbent vessels. 5th, By preventing injury from sudden transitions of temperature. 6th, By keeping the soil moist."

It would seem from all the facts I have been able to collect, that salt corrupts vegetable substances when mixed in small quantities, but preserves them when it predominates in a mass; that in dry seasons its effects are more apparent, and whether it attracts moisture from the atmosphere, or whether it acts as a stimulant or condiment, is of little consequence so long as its effects are certain.

On account of the small quantity of salt, in weight, required for manuring lands, it is no inconsiderable recommendation, because on that account it may with ease be conveyed to the most rough, steep and mountainous parts, to which the more bulky and heavy manures most in use could not be carried, but with great labor, and at an expense far exceeding all the advantages to be effected from them.

For a top dressing, a composition of salt and lime, four bushels of the former and twelve of the latter, to the acre, have been highly recommended for grass lands infested with moss, and promoting a more vigorous growth of grass. Its beneficial effects on asparagus beds is well known to gardeners, giving a deeper color and a more vigorous growth to the plants.

Salt itself is considered, by some, rather too harsh in its nature; but a mixture, say six bushels of dry ashes to ten of salt, is sufficient for an acre, and should be spread upon the furrow and harrowed in. By being thus mixed, one particle incorporates with and mollifies the other, and if conveyed into the earth by a soapy, smooth method, will prove the real enricher the earth wants, to send forth vegetation.—*Quarterly Journal of Agriculture and Science.*

Cornwall and the Land's End.

Many of the practices prevailing in Cornwall, with the modes of speaking and forms of expression among the people, are so nearly allied to those of New England, as to satisfy me that we must have imported them from this part of the world, and that scions from Cornwall are thickly engrafted in our pilgrim land. I wish we might inherit, in the fullest measure, the spirit of full-souled hospitality which I found among them. I have only to regret that the rules which I have prescribed to myself forbid my saying what I would. But the feelings of grateful and affectionate respect are not the less strong for being suppressed; and my Cornwall friends, from their own generous natures, may be assured that my sense of their constant and disinterested kindness is all which they themselves would desire it should be.

On this excursion into Cornwall I went to the Land's End, and planted my foot on the very last rocky point, extending into the sea, which I was able to reach. I had but a few moments before passed a traveller's home, with the significant sign, "The First and the Last House in England." Nothing can be more picturesque than this rude and rock-bound shore, with its white-fringed ruffle of surf as far as the eye can reach, and a few scattered rocks at a distance, over which the swelling waves were profusely pouring their showers of diamonds, so treacherous to the home-bound mariner, so picturesque and beautiful to the landsman, as he suns himself upon the grassy shore, watching the distant sails scattered upon the wide expanse, full-freighted with human life and hopes glittering in the sunlight, and floating like water-fowl in their native element.

As I stood upon the far-jutting point of the promontory, and felt that no intervening country separated me from the land of my birth and the home of what is most dear to me, I found my head growing dizzy, my heart beating as though it were struggling to get out, and my cheeks quite wet, perhaps with the spray; and I could only find relief in sending a thousand unspoken messages of affection, and in more earnest prayers for the prosperity of the land and the loved ones whom I had left behind. May the winds waft the former to their objects, and the last find a response in heaven!—*Colman's Tour.*

Premiums of the Pennsylvania Horticultural Society.

The following will be awarded at the Stated meeting on the 19th inst.

Seedling Camellia.—For the best American, exhibited at any stated meeting from December to May, inclusive, $10.

Everblooming Roses.—For the best 12 named varieties, in pots, $7.

For the next best do. $4.

For the best American seedling, $3.

Pelargoniums (*Geraniums.*)—For the best ten named varieties, in pots, $3.

For the next best do. $2.

Potatoes.—For the best forced, half a peck to be exhibited, $2.

At the intermediate meeting on the 2nd of next month.

Rocket Larkspurs—For the best, twelve to be exhibited, $2.

Strawberries.—For the best two quarts, of a named variety to be exhibited, $2.

For the next best do. $1.

Cherries.—For the best, three pounds, of a named variety to be exhibited, $2.

For the next best do. $1.

Turnips.—For the best grown in the open ground, one dozen to be exhibited, $2.

At the Stated meeting on the 16th.

Garden Roses.—For the best, twelve named varieties to be exhibited, $3.

For the next best do. $2.

Pinks.—For the best, six named varieties to be exhibited, $3.

For the best American seedling, $2.

Artichokes.—For the best, six in number to be exhibited, $3.

Grapes (*Foreign*).—For the best, raised under glass, three bunches, $5.

For the next best do. $3.

Cherries.—For the best, named, three pounds to be exhibited, $2.

For the next best, do. $1.

To Cook Spinach.—It should be nicely picked, and put into a stew pan, with just sufficient water to keep it from scorching. When it has boiled for twenty minutes, pour it into a cullender and strain the water off; put it into the stewpan again, with a piece of butter the size of a walnut, and a little peppar and salt; mince it up, and return it to a slow fire; take some slices of light bread, toast them well on both sides, dip them in the water in which the spinach was boiled, lay the spinach on the toast, and garnish with hard boiled eggs, and you will have one of the best spring dishes.

Old authors are profuse in their praise of *Sage*, and it is said the Chinese esteem it as superior to the best of their own tea. Philips states that the Dutch send out dried Sage leaves to China, for which they receive four times their weight of tea.

The Crocus.

The origin of the word Crocus is, perhaps too uncertain to hazard an opinion upon. The ancient fabulists employed it as the name of a youth who was said to have "sighed away his life" and become a flower,—a poetical idea, worthy of Ovid.

Every one as naturally looks for Crocuses in the flower garden, as for primroses on the hedge bank, when the first warm rays of spring remind us that vegetation is waking from its wintry slumber.

"Welcome, wild harbinger of spring!
To this small nook of earth;
Feeling and fancy fondly cling
Round thoughts which owe their birth
To thee, and to the humble spot
Where chance has fixed thy lonely lot.

"To thee—for thy rich tipped bloom,
Like heaven's fair bow on high,
Portends, amid surrounding gloom,
That brighter hours draw nigh,
When blossoms of more varied dyes
Shall ope their tints to warmer skies.

"Yet not the lily nor the rose,
Though fairer far they be,
Can more delightful thoughts disclose
Than I derive from thee;
The eye their beauty may prefer;
The heart is thy interpreter!"

Bernard Barton.

The usual cultivation of Crocuses, as every body knows, consists alone in once covering the bulbs with earth. They grow and flower, and grow and flower as regularly as the earth revolves about the sun. If however the finest flowers be desired, or increase be wished of any favorite sorts, the bulbs should be taken up after the decay of the foliage, and replanted in September; or they may be taken up in July, and replanted at once.—*Maund's Botanic Garden.*

The Grape Vine.

Much has been said and written on the culture of the grape: and much more will probably be necessary, before we shall generally be persuaded to act as if we thought it worth while to expend a little care and trouble for the attainment of a far greater benefit. We do not seem aware of the facility with which a luxuriant and fruitful vine may be obtained. The writer recollects observing to a friend, some months since, that "every man who had a foot of ground out side of his house, might have a grape vine." "O," said he, "no ground at all is necessary!" Well, but how is that? "Plant your vine," he replied, "in your cellar, lead it out at the window, and train it up the building, to the top of your house, if you like." Now, whether the roots of the vine would be quite satisfied with the darkness and coolness of the cellar, without the light and warmth of the sun, we know not, but it is mentioned to show the little excuse farmers have, who do not luxuriate themselves, and enable their families to luxuriate in a plentiful supply of this delicious fruit. The following remarks of Dr. Underhill, a successful culturist in the vicinity of New York, were made at a meeting of the Farmers' Club, of the American Institute, on the 7th ult., and we take them from the *Farmer and Mechanic.*—Ed.

The grape is most delicious, most salutary—diluting the blood, and causing it to flow easily through the veins—there is nothing equal to it for old age. In this country its use will grow, will increase until its consumption will be prodigious. It will supplant some of the articles which destroy men, and establish the cheerful body in place of the bloated, diseased systems of the intemperate. No disease of the liver—no dyspepsia are found among those who freely eat the grape. This remarkable fact is stated in reference to the vineyard portions of France. Persons who are sickly in grape countries, are made well when grapes are ripe. And this result is familiarly called the *Grape Cure!* In this country our attention has been long misdirected. We have spent years and sums of money on imported vines. We have proved the falacy of all this. The foreign grape vine will not flourish in our open air. It only thrives under glass! I suppose that millions of dollars have been lost on these foreign vines during the past century. Climate has settled that question. Our extremes of cold and heat are incompatible with the character of the foreign vine. Time will show that our native stock of grapes will, by cultivation, gradually improve in quality. It is with them, as with animals, great amelioration follows care and proper knowledge. I spent some thousands of dollars on the foreign grape vines, without success. We want to supply our twenty millions of people with fine grapes! In 1830, France produced fourteen thousand million pounds of grapes. Of which, were consumed on the tables and exported in the form of raisins, &c., two thousand million of pounds! Are you afraid that our market will be overstocked from the few vineyards which we have?

There are many books on the culture of the vine, but their doctrines are generally not at all applicable to our country. Europe has the moisture from the ocean—we have the dry winds blowing over our continent. More heat penetrates our ground in one of our hot, bright days, than England has in a week. The books of Europe are an honor and an ornament to the world—but they lead us from the truth frequently—such is the great difference of the climates of Europe and America. We must here select our best na-

tive grapes—there are many—of which we have now proved the Isabella and Catawba to be excellent. Plant vines deep, on dry soil, where there are no springs of water—on slaty, calcareous, or other soils—but the drier they are, the better for the grape. A soil of brick clay will not do. The roots must be deep to avoid our severe droughts. Plough the ground exceedingly deep before you plant your vineyard. I have found that in seven years' culture, the savage much of my Isabella has vanished. Its character is greatly changed for the better. Its pulp is almost gone; its seeds are less.

The culture of the vine has one great and eminent advantage over all other crops. If you plant it well, you will get an increasing crop for twenty-five years; and every year (with rare exceptions) for fifty and even seventy-five years, a good crop. Vines will sometimes live a hundred years!—and on our native vines you can have double the quantity which is obtained from a vine in Europe, where the vine has from ages of short pruning, become feeble, and attained its perfection. We do not let the vines bear one half as many grapes as they would if all were left on. Thin them out well. You will have better and richer fruit.

In pruning, I do not spur them! I cut away the old, and bring the new vine to bear. Nineteen out of twenty persons spur-prune their vines in this city—leaving two eyes on.

I keep my vines within about six feet in height for convenience in gathering the clusters. All kinds of animal substances are good for manure for vines. Street manure is excellent for them. They ought not, however, to be stimulated too highly, for then they become profuse in foliage, and the fruit mildews and rots. An even regular growth ought to be kept up. Rotten sods mixed with barn-yard manure is good for vines. Blood is good. Long Island might by means of the fish called Manhaden be made one beautiful vineyard! Take the fish in June, make a hole near the root with a crowbar, push down a fish—there will be no smell from it, and it is an admirable manure for grape.

Composts of sea weed, black earth and cow and horse dung are good.

Ashes are excellent on sandy lands where their phosphates are leached off by rains.

Prune in March! they bleed, and my bleeding vines present a magnificent spectacle in the rays of the sun. Slight bleeding does not hurt them a bit! The buds start the better for it. The Germans say, "if the juice runs out of the ends of the vines, we know we shall have a good crop!" In France and Italy however, they do not prune so as to bleed their vines.

Johnny Appleseed.

About the time of the survey of the lands in the United States military district, northwest of the river Ohio, preparatory to their location by those holding the warrants which had been issued by the government to the soldiers of the revolutionary war, for services during that war, there came to the valley of the Muskingum, and its tributaries, the Tuscarawas, Walhouding, Mohican, &c., a man, whose real name, if ever known, is not now remembered by the oldest inhabitants here, but who was commonly known and called all over the country by the name of Johnny Appleseed.

This man had imbibed so remarkable a passion for the rearing and cultivation of apple trees from the seed, and pursued it with so much zeal and perseverance, as to cause him to be regarded by the few settlers, just then beginning to make their appearance in the country, with a degree of almost superstitious admiration.

Immediately upon his advent he commenced the raising of apple trees from the seed, at a time when there were not perhaps fifty white men within the forty miles square. He would clear a few rods of ground in some open part of the forest, girdle the trees standing upon it, surround it with a brush fence, and plant his apple seed. This done, he would go off some twenty miles or so, select another favorable spot, and again go through the same operation. In this way, without family and without connextion, he rambled from place to place, and employed his time, I may say his life.

When the settlers began to flock in, and open their "clearings," old Appleseed was ready for them with his young trees; and it was not his fault if every one of them had not an orchard planted out and growing without delay.

Thus he proceeded for many years, deriving a self-satisfaction amounting to delight, from the indulgence of his engrossing passion.

Such were the labors and such the life of Johnny Appleseed among us, and such his unmingled enjoyments, till about fifteen years ago, when, probably feeling the encroachments of others upon his sphere, and desiring a new and more extended field of operations, he removed to the far West, there to enact over again the same career of humble but sublime usefulness.

This man, obscure and illiterate though he was, was yet, in some respects, another Dr. Van Mons, and must have been endued with

the instinct of his theory. His usual practice was to gather his seeds from seedling trees, and to take them from as many different trees as were to be found within the range of his yearly autumnal rambles, and from those particular seedling trees affording the highest evidence in their fruit that the process of amelioration was begun and was going on in them. At first, his visits necessarily extended to the seedling orchards upon the Ohio and Monongahela rivers in what were called the "settlements;" but when the orchards of his own planting began to bear, his wanderings, for the purpose of collecting seed, became more and more narrowed in their extent, till the time of his departure further westward.

Still true, however, to the instinct which first drew him to the Van Mons theory, for the production of new ameliorated varieties of the apple, he has continued occasionally to return in the autum to his beloved orchards hereabouts, for the double purpose of contemplating and ruminating upon the results of his labors, and of gathering seeds from his own seedling trees, to take with him and carry on by their means reproduction at the West. Recently, his visits have been altogether intermitted. Our hope is that he may yet live in the enjoyment of a green old age—happy in the multitude of its pleasing reminiscences.—*Magazine of Horticulture.*

Coshocton, Ohio, Feb. 24, 1846.

Gurneyism.

This term, of whose meaning perhaps nineteen twentieths of our readers are utterly ignorant—is applied to a new and particular kind of manuring, which has been employed with signal success by Mr. Gurney, a farmer in East Cornwall. The operation consists in covering grass land with long straw, coarse hay, or other fibrous matter, about twenty pounds to the fall; allowing this covering to lie till the grass spring through it, which it does with astonishing rapidity, to the desired length, and then rake it off to allow the bestial to reach the pasture. The covering is then applied to another portion of the field; the operation of removal and covering being repeated so long as the straw or hay remains sufficiently entire to admit of convenient application. The merits of the system which is yet in its infancy, were thus stated by Mr. Gurney at a late meeting of the East Cornwall Experimental Club. About seven weeks since, he had covered half a field of grass, of three acres in this manner, and about a fortnight ago, when examined, the increase had been found to be at the rate of upwards of five thousand pounds per acre, over the covered portion of the field. At the time the straw was raked off and laid in rows twelve feet apart in the field, and 115 sheep were put on the grass with a view to eat it down as quickly as possible. After they had been there about a week, they were succeeded by 26 bullocks, to eat off the long grass remaining, and which the sheep had left. The field was thus grazed as bare as possible. The same straw was now again thrown over the same portion of the field from which it had been raked; and on inspection that morning, he had found the action going on as powerfully as on the former occasion. He thought the sheep, on first raking off the straw, were not so fond of the grass as they were of that uncovered; but after twenty-four hours exposure to the sun and air, he thought they rather preferred it. He had forty acres now under the operation, and in consequence of it, he had pasture when his neighbours had none." Fibrous covering, or Gurneyism, as thus described, is certainly a cheap and convenient mode of manuring; all that is wanted is only further experiment to test its general applicability.—*Chambers' Journal.*

Cultivation of Fruit.

The following extracts from a letter recently received from Robert Chisolm, of Beaufort, S. C., by the editor of the *American Farmer*, are taken from that paper. Every hint in relation to the propagation of fruit, or its improvement, is valuable to the farmer and the marketman. We again repeat, that adequate care is too frequently neglected in this matter, by too many among us.—Ed.

"I have just received a large lot of *all* kinds of fruit trees from Paris, which to my surprise came out after a voyage of nearly 90 days, in better order, and are doing apparently much better than Apple, Peach and Pear trees received early in the winter from an *honest* nurseryman on Long Island. I believe the experience of our seaboard generally, is in favour of European trees over Northern. Thus far in the year my fruit trees promise most abundant returns for the liberal manuring, little attention and poor soil I have given them. My soil is either a very stiff red clay very near the surface, or a very thin soil upon a hard sand, of the nature of quicksand. The most productive Apple trees that I have, are upon the Doucin or half standard stock, and next upon the Paradise or dwarf. The trees I have are mostly from Italy, and have succeeded well thus far, that is, they have borne well, and the fruit has been as fine as any I have ever eaten in this country, and very superior to any thing I have ever eaten in Europe. Apple

and Pear trees have, however, been found not to succeed upon their own roots, i. e. upon Apple (standard) and Pear roots, in the sandy soils of our Sea islands, being disposed to grow too vigorously, and bear little, and sometimes not even blossom.

"I have imported a large number of dwarf and quenouille trees from Paris, for several of my friends this year, so that we will soon know whether trees of those kinds will succeed any better.

"An old and experienced planter and gardener in my neighbourhood, whips or beats his Pear trees with rods, or poles, or cowskins, when they do not bear, and has succeeded in making them yield fruit by this treatment. I find my soil or treatment equally favourable to the sweet Orange trees, which bore most abundantly last summer; and the fruit has been pronounced by all to whom I have given them, and they are not few persons, to be the sweetest oranges they have ever eaten, in which opinion I quite coincide, as far as my knowledge goes. I have also several hundred Olive trees, received from Florence, most of which are just coming into bearing, and promise most abundantly this year, although many of them bore last summer.

"I believe that in our country an unreasonable prejudice exists against budding or grafting the peach upon the quince. Most amateurs in Europe prefer such trees, because they come into bearing much sooner, frequently produce larger and finer flavored fruit, occupy much less room, admitting thereby of a much greater variety of fruit in a small garden, requiring to be only about ten feet apart, and will frequently flourish in soils unfavorable to trees upon pear roots.

"I have succeeded in making very dwarfish pear trees, one now bearing, not more than two and a half to three feet high, by *budding fruit spurs* into quince stocks quite near the ground. I rather prefer budding buds that have started, or spurs, or even limbs sometimes as long as eight inches, to dormant buds or eyes. In roses I seldom use other than started buds or short limbs when I have a choice.

"It would give me pleasure to have you just drop into my garden to see my Tea and Noisette Lamarck Roses, nearly four inches across, the bushes hanging on the ground with a large variety of Tea, Noisette Bourbon and other Roses; my apple trees, sheets or balls of blossoms, pear and peach trees filled with fruit, my olive trees appearing almost bending under the weight of their unopened buds, and many other sights that gratify my grateful heart daily.

ROBT. CHISOLM."

Maple Sugar.

OUR readers are perhaps, scarcely aware of the great amount of sugar made in the Eastern States. In Maine, New Hampshire, Massachusetts, Connecticut, Vermont, New York, and Pennsylvania, more than 20,000,000 lbs. are produced—full one-tenth of the whole made in the United States. New York is the greatest producer of this article, after Louisiana. The following is taken from the *Maine Farmer*.—ED.

We have no doubt that sugar enough to supply every family in Maine might be made from the rock maples within the limits of the state. Those who have been "*in the woods*," know something of the vast extent of forest there is on our frontier, made up in part, and in many places wholly, by this noble tree.

Whether it could be made as cheap as the southern sugar from the cane, is entirely another question. We suppose that, as it is generally made, it cannot be, and of course there is not so much attention paid to the manufacture as there would be, were it otherwise. When maple sugar is made right, and divested of all foreign ingredients, it is as good, and indeed, is just the same as the best cane sugar. We generally find it in a somewhat impure state; containing a portion of the astringent matter of the maple, and, of course, discolored in appearance, and not pure to the taste. Almost every one who makes sugar has some rule of his own. A year or two ago we received some from a friend in Mount Vernon, that was perfectly crystallized, but we have not yet ascertained the process by which it was done. As a general thing, there is too little care taken in keeping the sap and the kettles clean. The sap is most commonly caught in rude troughs, that probably have been out in the weather during several seasons; and when collected, poured into the kettle without straining. No attention is paid to the condition of the sap, whether it be sour or not, whether it be clean or not, and no trouble taken to clarify it.

Among the many directions given for the manufacture of this kind of sugar, we like best those given by Mr. E. W. Clark of Oswego, New York. We believe he obtained a premium for some of his sugar. The following are the directions he gives for the process:

"When the syrup is reduced to a consistency of West India molasses, I set it away till it is perfectly cold, and then mix it with the clarifying matter, which is milk or eggs. I prefer eggs to milk, because when heated, the whole of it curdles, whereas milk produces only a small portion of curds. The eggs should be well beaten, and effectually

mixed with the syrup while cold. The syrup should then be heated until just before it would boil, when the curd rises, bringing with it every impurity, even the coloring matter, or a great portion of it, which it had received from the smoke, kettles, buckets, or reservoirs. The boiling should be checked, and the scum carefully removed, when the syrup should be slowly turned into a thick woollen strainer, and left to run through at its leisure. I would remark, that a great proportion of the sugar that is made in our country is not strained after cleansing. This is an error. If examined in a wine glass innumerable minute and almost imperceptible particles of curd will be seen floating in it, which, if not removed, render it liable to burn, and otherwise injure the taste and color of it.

"A flannel strainer does this much better than a linen one. It is indeed indispensable. As to the quantity of eggs necessary, one pint to a pailful of syrup is amply sufficient, and half as much will do very well. I now put my syrup into another kettle, which has been made perfectly clean and bright, when it is placed over a quick, solid fire, and soon rises, but is kept from overflowing by being ladled with a long dipper. When it is sufficiently reduced, (I ascertain this by dropping it from the point of a knife, while hot, into an inch of cold water—if done, it will not immediately mix with the water, but lies at the bottom in a round flat drop,) it is taken from the fire, and the foaming allowed to subside. A thick white scum which is usable is removed, and the sugar turned into a cask, placed on an inclined platform, and left undisturbed for six weeks or longer, when it should be tapped in the bottom and the molasses drawn off. It will drain perfectly dry in a few days.

"The sugar made in this way is very nearly as white as lime sugar, and beautifully grained. We have always sold ours at the highest price of Muscovadoes; and when these sugars have sold at eighteen cents, ours found a ready market at twenty. Two hands will sugar off 250 lbs. in a day. From the scum taken off in cleaning, I usually make, by diluting and re-cleansing, one-sixth as much as I had at first, and of an equal quality."

Maple sap makes a very palatable drink, and those who have only a tree or two in their vicinity, can, at the present time supply themselves very easily with it by tapping and catching the sap. It is also made into a very pleasant beer. It is excellent to feed bees with, and is the first thing that offers itself, of the spring product, for that purpose.

American Institute—Farmers' Club—Indian Corn.

May 5th, 1846.

J. S. Skinner, in the Chair.

Mr. Meigs—Remarked that the term *Maiz* was, when spelt *Mayse*, used by some of the northern people of Europe to denominate bread. Maiz was of the genus of plants called *Zea* by the botanists.

That the term *Samp* was Indian, and meant corn coarsely broken boiled *in milk*. The term *Hommony* was Indian, and meant corn coarsely broken, boiled *in water*. And that it was conceded that Indian corn was a native of America, unknown to Europe or Asia before the discovery of this continent.

As to Indian corn, the qualities of it vary much in the different sections of the United States. The bread made from Southern corn is dry and very palatable; that from Northern corn is more moist and heavy. The quality of bread made of any corn depends as much on the modes of cooking it as upon the kind of corn used. I think that the success of the experiment of introducing the use of Indian corn into England, will depend upon these circumstances of quality and cooking.

Col. Edward Clark—Our Northern corn seems to contain more silicious matter in its composition, than the Southern corn. It requires much longer immersion in water before it is sufficiently softened. Our flint corn has its name from its hardness. Our Southern corn is easily pounded or ground, and is much more easily cooked. When cooked with milk, or with a portion of lard in it, it is excellent food.

Judge Van Wyck—Indian corn helps the soil on which it grows for succeeding crops of grain. It is an excellent crop to precede one of wheat. The soil for corn must be rich—for it is a common saying—*Corn is a grass feeder!*—and the cultivation necessary in a crop of it, has the effect of leaving the soil in fine condition for wheat or any other grain. Corn is one of the strongest and best foods for man, and still more so for many animals. It has more of the *flesh-making properties* in it than any kind of wheat. *Oats and corn ground together* form a feed which fattens animals more rapidly than any feed given to them. I believe that the Southern corn for some purposes is preferable to the Northern. It makes a lighter bread and is more easy to cook. But the Northern is a stronger food than the Southern. The stalks of corn fed to cows give the best milk and more of it than any hay. This effect is probably due to the large amount of saccharine contained in the stalks—sugar is made from their juice. The roots of corn extend far, and great care ought to be taken

not to injure them in plowing or other cultivation.

Mr. Houghton, of Rahway, N. Jersey—Our Northern corn, if judged by its price in market, is to be preferred to any other, for it brings always *two cents per bushel more than any other corn!*

Col. Clark—Our Northern corn weighs six pounds per bushel more than the Southern corn.

Mr. Wakeman—Our Northern hard corn is oily, and what is termed Pop Corn, owes its peculiar property to its oily nature. I read the following remarks from an intelligent writer, "Of the grain stuffs, rice and corn differ in this, that the former contains the least fatty matter, and corn the most, and ranging between these extremes we have wheat, oats, rye, barley, &c., all different, and yet are capable of being applied to the conditions best suited to them. It is on account of the fatty nature of Indian corn, that it is such a strong kind of food, and that persons unaccustomed to it cannot at first endure it. The nations which feed chiefly on rice, are not near so robust as those which use Indian corn, as the blacks at the South mostly do. Persons unaccostomed to this kind of food, therefore, will do best to commence with the white Indian meal, in preference to the yellow, as it is not so rich. This preference has already occurred in England, where the article is new. There is only one more observation which I wish to make. As Indian corn meal contains so much fat in it, if kept too long it is liable to become rancid, and it is then more or less unfit for use. In the shipments made to the West Indies, the meal is commonly kiln-dried, to obviate as much as possible, this tendency to rancidity. For reasons just detailed, the white corn meal will keep rather better—and from its being lighter and milder, it is as much preferred for use in warm climates, as the yellow for similar inducements, is in cold."

Mr. Hyde—The discussion of this question here, ought to be carefully conducted; for it may have some influence on public opinion abroad. There are two kinds of Southern Gourd Seed Corn—one white and the other yellow. Our Western corn is a flat grain, and is both white and yellow. Our Northen white and yellow corn have more gluten and less starch than the Southern corn—so has the corn of our Western country. The differences of quality are almost as distinguished as the lattitudes in which they are produced. I have raised the Canada corn in Missouri, and its growth was there so rapid that it was fit for eating by the first day of July. The white corn of Rhode Island, has more starch than most Northern corn. Jersey corn has more yet, and makes better bread. Our Western corn has yet more starch. Our Tuscarora corn has most starch of any corn. And I have known persons find it quite difficult on examining fine bolted meal from the Tuscarora corn, to distinguish it from wheat flour! Our sweet corn has little, if any starch—it is only good to eat when green, it is then very sweet and delicious. The Canada corn is insipid—Rhode Island corn is somewhat so. The Sweet corn grows all over our country without alteration in its peculiar properties.

Mr. Meigs—I have planted almost all the varieties of Indian corn. When Lewis and Clark returned from their visit to Oregon, they brought with them a small corn, which had been from time immemorial, cultivated by the Mandan Nation of Indians, and have for years cultivated that corn in my garden, and have distributed its seed for years. The plant attained about three feet of height and the ears of green corn were usually fit to eat on the fourth of July.

Mr. Hyde—We can raise Indian corn in our country *for twenty cents a bushel!* we can have from thirty to fifty bushels per acre with a very moderate amount of labor when compared with other grain. Our wheat may average some twenty or twenty-two bushels per acre—so that we can easily have twice as much corn as of wheat on an acre. In our Western world, corn is raised by the plow alone— *the hoe is almost* entirely unused by our people, and it is not necessary to use it. Corn pounded in a mortar coarsely, or ground coarsely in an iron mill, and judiciously cooked, is universally esteemed.

Mr. Browne—I exhibit here the pop corn and the rice corn; the grains of the latter of the size, and nearly the figure, of grains of rice. This rice corn has of all, the least portion of starch. In these grains the oil is the cause of the peculiar effect of heat in turning the grain inside out, called *popping* it, from the slight explosion which results from the decomposition of the oil of the grain. In order to produce this result in the best manner, have a box of wire gauze of small meshes, holding about two quarts; put in the pop corn and expose it to heat, often turning it about, and very soon every grain will explode and be turned inside out. The gases cannot burn, nor can the corn be hurt by the fire, for it acts on the same principle with Sir Humphrey Davy's Safety Lamp! A Light House on Lake Erie has used oil made from corn for burning. Some sixteen gallons of the oil have been obtained from one hundred bushels of corn, and it is believed that the oil is of a superior quality.

The various applications of Indian corn

are very valuable in rural economy. Those kinds which yield the most starch are best for bread. Those which contain the largest portion of oil are best calculated for feeding poultry.

Prof. Mapes—Corn is supposed sometimes not to flourish for want of the presence of phosphates in the soil. How to supply such deficiency—bone dust is well adapted, for bone dust contains eighty-five per cent. of phosphate of lime and fifteen per cent. of gelatine. The fish called Moss Bunker, used for manure, is valuable principally on account of the super phosphate of lime in its bones. It is the chemical element to which its fertilizing powers are due.—*Farmer and Mechanic.*

For the Farmers' Cabinet.

The Yellows in Peach Trees.

All who appreciate the peach as one of our most delightful fruits, must watch with interest every suggestion that may promote its preservation and thrift. For several years past the *yellows* and the *worm* made our peach orchards so short-lived and so apt scarcely to bear at all, that our Jersey farmers were so discouraged that few trees were planted; they however seem to have revived for the last season or two, and many orchards have recently been set out. I meet with the remarks below in the Cultivator, and though there is nothing conclusive in them, they will yet, I believe, be read with interest by many readers of the Cabinet, as they have by myself. W. N.

Newtown, N. J.

The Yellows in peach trees, is a subject that still continues to be interesting in this part of the country. I wish, therefore, to communicate a fact which may be of some importance in our inquiries after the cause of that disease.

Four years ago, Mr. B. Silliman, Jr., of this city, procured from Liverpool a considerable number of young peach and nectarine trees *budded on plum stocks.* Some of them were put for standards and others walled upon a board fence. There had been no peach trees for twenty years on the ground where those were planted. They grew well the first season, and appeared in perfect health. The second season some of the *peach* trees showed symptoms of yellows, and died the third season. At the present time—February, 1846,—no one of the trees, either nectarine or peach, is free from disease. In the garden adjoining that of Mr. Silliman, there were diseased trees standing at the time the imported trees were planted out.

The following inferences may perhaps be safely made from this experiment.

1. Budding on plum stocks, is not a security against the "yellows."

2. The plum tree has not hitherto been known to be liable to the disease. We may therefore conclude that the disease commenced in Mr. Silliman's trees in the *peach* and not in the *plum* portion—that is, in the *top*, and not in the *root*. This furnishes a strong probability that it is the natural course of the disease to commence and be seated primarily, in the part of the tree above ground.

3. The disease did not arise from anything inherent in the trees, but from some cause external to and disconnected from them. The ground of this conclusion will not be apparent without taking in connection with what has been stated, the fact, that the "yellows" is unknown in England. This conclusion bears pretty directly upon an important theory, which has been very ably presented to the public in a recent work, and met with a favourable reception. The theory is thus stated: the yellows is "a *constitutional taint*, existing in many American varieties of the peach, and produced in the first place by bad cultivation and the consequent exhaustion arising from successive over-crops. Afterwards it has been established and perpetuated by sowing the seeds of the enfeebled tree."

It is most sincerely to be regretted that any fact should present itself, that seems irreconcilable with a theory which offers to us, if correct, so ready and sure a means of having healthy trees. According to the theory, trees procured from regions where the disease has not appeared—England, France, Italy, China, or even our own "Great West," for example—*should* be free from disease, and *should* continue so, if planted in an unexhausted soil. Mr. Silliman's experiment leads us to apprehend that we are not in that way to escape the evil.

To see that we make no unwarranted conclusion, let us advert to the facts and circumstances involved in this trial of foreign trees. It is well known that the "yellows" has not appeared in England. Mr. Downing (*Fruits and Fruit Trees of America*, p. 467,) states a further fact, that "notwithstanding the great number of American varieties of peach trees that have been repeatedly sent to England, and are now growing there, *the disease has never extended itself there*, or been communicated to other trees." Peach trees in England, therefore, have *no constitutional taint*, that makes them liable to the "yellows;" and if they

remain there they never take the disease. But bring these trees to New Haven, and in fifteen months after their arrival they are dying with the "yellows." There must therefore be *something* here which is not there. The disease shows itself too soon after the trees reach this country to admit of the supposition that the exhausting processes said to be peculiar to our climate and practices, have an agency in producing it. Must we not suppose the disease to be connected somehow with *place* rather than *condition?* It matters not where our trees or seeds come from—Liverpool, Flushing, Newburg, Western New York or Ohio—if planted out in New Haven or its vicinity, either in light sand, or deep, rich loam, they die of the "yellows;" some in one, some in two, all in three or four years.

The inference from all this seems unavoidable, that the cause of tne disease has existence independent of the constitution of the trees. What this cause is, where it is, what it is attached to, what it emanates from, thousands besides myself are waiting and watching with anxiety to know. Many facts which cannot now be detailed, show satisfactorily that the presence of a diseased tree among healthy ones, has some deleterious influence, direct or indirect, upon the health of its neighbours—but in what way, we are as yet unable to say. Our best mode of guarding our trees against this destroyer is in conformity with this idea of a communication of disease from one tree to another; which is, to *exterminate diseased trees, and replace them with such as are healthy.* It is found in practice desirable that the extermination should extend to *all* affected trees, leaving none. And the greater the territory over which this measure is enforced, the better. I cannot, from my own experience, say confidently that it makes any difference whether the trees are rooted up when in full leaf, or after the leaves have fallen.

NOYES DARLING.

New Haven, Ct., Feb. 10th, 1846.

ASPARAGUS should be tender; if not, the slower it is boiled the better. It should be put into boiling water, with a little salt, and boiled for half an hour. It is better to boil it in a cotton bag,—and, by the way, all house-keepers should have small cotton bags for boiling vegetables in, as they are not only better, but save time in dishing. When done, have some toast ready, which dip in the water in which the asparagus is boiled. Then lay the asparagus on it, pour melted butter over it, and send it to the table.—*Ohio Cultivator.*

Cultivation of the Hop.—*Humulus lupulus.*

ALTHOUGH the Hop is not a culinary vegetable, as it is more or less used in every part of our country, it may not be amiss to treat of its culture. It is presumed, that in proportion as habits of temperance are inculcated, our citizens will have recourse to beer as a wholesome beverage; and as a great deal depends on the manner in which Hops are cured, I propose giving directions for their management throughout, so as to enable those who choose, to prepare their own. My information is collected chiefly from Loudon's Encyclopædia of Plants.

"The Hop has been cultivated in Europe an unknown length of time for its flowers, which are used for preserving beer. Its culture was introduced from Flanders in the reign of Henry the VIII; though indigenous both in Scotland and Ireland, it is little cultivated in those countries, owing to the humidity of their autumnal season. Like other plants of this sort, the hop bears its flowers on different individuals; the female plants, therefore, are alone cultivated. There are several varieties grown in Kent and Surrey, under the name of Flemish, Canterbury, Goldings, &c.; the first is the most hardy, differing little from the wild or Hedge Hop; the Goldings is an improved and highly productive variety, but more subject to blight than the other.

"The hop prefers a deep loamy soil on a dry bottom; a sheltered situation, but at the same time not so confined as to prevent a free circulation of air. The soil requires to be well pulverized and manured previous to planting. In hop districts the ground is generally trenched either with a plough or spade. The mode of planting is generally in rows six feet apart, and the same distance in the row. By some, five, six, or seven plants, are placed in a circular form, which circles are distant five or six feet from each other. The plants or cuttings are procured from the most healthy of the old stools; each should have two joints or buds: from the one which is placed in the ground springs the root, and from the other the stalk. Some plant the cuttings at once where they are to remain, and by others they are nursed a year in a garden. An interval crop of beans or cabbage is generally taken the first year. Sometimes no poles are placed at the plants till the second year, and then only short ones of six or seven feet. The third year the hop generally comes into full bearing, and then from four to six poles from fourteen to sixteen feet in length are placed to each circle, or one pole to each plant if cultivated in

straight rows. The most durable timber for poles is that of the Spanish Chesnut.

"The after culture of the hop consists in stirring the soil, and keeping it free from weeds: in guiding the shoots to the poles, and sometimes tying them for that purpose with bass or withered rushes; in eradicating any superfluous shoots which may rise from the root, and in raising a small heap of earth over the root to nourish the plant.

"Hops are known to be ready for gathering when the chaffy capsules acquire a brown colour, and a firm consistence. Each chaffy capsule, or leaf calyx, contains one seed. Before these are picked, she stalks are detached, and the poles pulled up, and placed horizontally on frames of wood, two or three poles at a time. The hops are then picked off by women and children. After being carefully separated from the leaves and stalks, they are dropped into a large cloth hung all round within the frame on tenter hooks. When the cloth is full, the hops are emptied into a large sack, which is carried home, and the hops laid on a kiln to be dried. This is always to be done as soon as possible after they are picked, or they are apt to sustain considerable damage, both in colour and flavour, if allowed to remain long in the green state in which they are picked. In very warm weather, and when they are picked in a moist state, they will often heat in five or six hours: for this reason, the kilns are kept constantly at work, both night and day, from the commencement to the conclusion of the hop-picking season.

"The operation of drying hops is not materially different from that of drying malt, and the kilns are of the same construction. The hops are spread on a hair cloth, from eight to twelve inches deep, according as the season is dry or wet, and the hops ripe or immature. When the ends of the hop stalks become quite shrivelled and dry, they are taken off the kiln, and laid on a boarded floor till they become quite cool, when they are put into bags.

"The bagging of hops is thus performed: in the floor of the room where hops are laid to cool, there is a round hole or trap, equal in size to the mouth of a hop-bag. After tying a handful of hops in each of the lower corners of a large bag, which serve after for handles, the mouth of the bag is fixed securely to a strong hoop, which is made to rest on the edges of the hole or trap; and the bag itself being then dropped through the hole, the packers go into it, when a person who attends for the purpose, puts in the hops in small quantities, in order to give the packer an opportunity of packing and trampling them as hard as possible. When the bag is filled, and the hops trampled in so hard that it will hold no more, it is drawn up, unloosed from the hoop, and the end sewed up, two other handles having been previously formed in the corners in the manner mentioned above. The brightest and finest coloured hops are put into pockets of fine bagging, and the brown into coare or heavy bagging. The former are chiefly used for brewing fine ale, and the latter by the porter brewers. But when hops are intended to be kept two or three years, they are put into bags of strong cloth, and firmly pressed so as to exclude the air.

"The stripping and stacking of the poles succeed to the operation of picking. The shoot or bind being stripped off, such poles as are not decayed, are set up together in a conical pile of three or four hundred, the centre of which is formed by three stout poles bound together a few feet from their tops, and their lower ends spread out.

"The produce of no crop is so liable to variation as that of the hop; in a good season an acre will produce 20 cwt. but from 10 to 12 cwt. is considered a tolerable average crop. The quality of hops is estimated by the abundance or scarcity of an unctuous clammy powder which adheres to them, and by their bright yellow colour. The expenses of forming a hop plantation are considerable; but once in bearing, it will continue so for ten or fifteen years before it requires to be renewed. The hop is peculiarly liable to diseases; when young it is devoured by fleas of different kinds; at a more advanced stage, it is attacked by the green fly, red spider, and ottermoth, the larvæ of which prey even upon the roots. The honey-dew often materially injures the hop crop; and the mould, the fire-blast, and other blights, injure it at different times towards the latter period of the growth of the plant."

The culture of hops is becoming an important branch of husbandry in the State of New York.* A correspondent observes, that "as fine samples have been grown in Orange and Madison counties as in any part of the world. The hop is considered somewhat precarious; but when the season is good, the profit is very great. The average product may be stated at 700 lbs., though it has reached 1600 lbs. to the acre; and in the latter case the expense amounted to sixty dollars. The ordinary, or average price, may be stated at eighteen cents per pound. The profits on an ordinary crop, according to these assumed data, would be about seven-

* Gurdon Avery, in the village of Waterloo, Oneida Co., New York, is said to have raised in 1842 on twelve acres of land, 29,937 lbs. of hops.

ty dollars from the acre. It often falls materially short of this, however, from the want of knowledge and care in gathering and drying the crop.

"The quantity of hops taken to Albany and the neighbouring towns on the Hudson, this year, (1834) has been estimated at 2,300 bales, or 500,000 lbs., which, had not many of them been prematurely gathered, or badly cured, would have yielded to the growers ninety or a hundred thousand dollars. But of the 2,300 bales, there was not more than 200 bales, we are informed, that ought to have received the denomination of first sorts. Many of them were picked too early, before the matter that imparts to them their value was sufficiently developed; and others were scorched or smoked in curing. This carelessness has seriously affected the character of our hops abroad, and they are no longer purchased by the Philadelphia brewers. They would soon form an important article of export, if their character was raised by care in their culture and drying, and a rigid inspection."

The young shoots of both wild and cultivated hops are considered by some as very wholesome, and are frequently gathered in the spring, boiled, and eaten as asparapus. The stalk and leaves will dye wool yellow. From the stalk a strong cloth is made in Sweden, the mode of preparing which is described by Linnæus in his Flora Suecica. A decoction of the roots is said to be as good a sudorific as Sarsaparilla; and the smell of the flowers is soporific. A pillow filled with hop flowers will induce sleep, unattended with the bad effects of soporifics, which require to be taken internally.—*Gardener's Assistant.*

Cabbage Sprouts.—Very few people take half the pains they ought with cabbages. When they are cut—no matter how—the stumps are left to bring sprouts; no matter when, nor how many. Now, the fact is, that when the sprouts begin to come, they should be all rubbed off but the best—or at most two; but if there be only one left to grow on each stump, it will grow faster and better, and be occasionally as good as the first head that was out; instead of which, a multitude of small ones are allowed to grow, not any of which bring good hearts, and all are, for the most part, but a poor apology for greens. When a cabbage is cut, the leaves should be cut off the stem, and as soon as the buds of the stump begin to grow, rub off, or cut, all that are not wanted, leaving one of the strongest and best to grow into a head, which it will do in an incredibly short time; equalling, and more frequently excelling, the first head itself, in flavour and appearance. This is adapted for families more than market gardens, because there is some trouble in rubbing or taking off the useless shoots; but it is well worth while in the case of early cabbages, in a private family, for it forms an excellent second crop.

Washings of our Streets.

What a vast amount of fertilizing material is daily running from our gutters into the sewers, and thence to the Delaware and Schuylkill, to dirty their streams, and thus be rendered worse than useless. It is well worth the consideration of the shrewdest among us, whether it may be possible in any way to avoid this waste, and turn it to valuable purposes in agriculture and horticulture. The following paragraph from a Scotch paper is to the point, and shows that the idea is by no means new with us.—Ed.

"Were Glasgow properly washed out, I should judge the washings capable of irrigating at least 15,000 acres—a square of five miles; and this, at £30 per acre, would be worth £450,000; or, at only £20 per acre, £300,000 yearly. Taking into account the population of Glasgow, these sums are considerably under what Liebig allows. We should have here a stream of dirty water running out from the city, to return again in a stream of milk—a transformation effected by the mysterious metamorphic power of combined vegetable and animal assimilation. No doubt a large outlay of capital would be necessary, in the first place, to bring in and distribute a sufficiency of water over the city, and to effect a complete drainage; and in the second place, to raise the collected washings, conduct them by aqueducts to the proper distance, and spread them out in a complete net-work of irrigation; but the exuberant fertility which would thence be extended over a large space of country would more than doubly compensate the amount of outlay, while the improvement which would be effected in the health, and even in the morals and character of the population of Glasgow would be inappreciable. In the event of this improvement being carried out generally, our beautiful rivers and streams, which now as they pass our cities and populous villages, suffer pollution by the drainage, would continue to run in crystal purity to the sea, sweet as when they first welled out in the fountains and springs from the bosom of our pastoral hills."

To feed land before it is hungry—to give it rest, before it is weary, and to weed it before it becomes foul, are said to be evidences of good farming.

To keep Plants and Trees on a long Voyage.

A CORRESPONDENT of the Gardener's Chronicle, writing from New Zealand says, "I was led to recommend the packing of fruit and other trees in zinc cases, through an inadvertence it is needless to explain; I regret this the more, as it may be productive of injurious consequences. The trees—apple and pear—to which I alluded in my former letter, and which, after being nine months out of ground (the vessel not sailing until five months after the time stipulated in the advertisement), are now flourishing in my garden, some of them having borne fruit this season, were packed in a deal case, in moss only, and without straw. At Valparaiso I witnessed another successful instance of this way of packing. A Frenchman arrived there, after a voyage of nearly four months, with several cases of flowering shrubs and trees from France, in the very best order. They had each a small ball of earth to the roots, which were afterwards wrapped in moss, and the plants were packed in the same material to prevent their being disturbed. I am anxious to correct any error, because a case of plants was sent to us by the London Horticultural Society, packed air-tight, and they all perished. In the warm latitudes these air-tight cases prevent evaporation, and this causes fermentation, especially if straw be used, as in the instance of a case I received, with the other alluded to above, containing peach, plum, gooseberry, and currant-trees, all of which died."

THE FARMERS' CABINET,

AND

AMERICAN HERD-BOOK.

PHILADELPHIA, FIFTH MONTH, 1846.

IT was the Editor's privilege to visit his friend Samuel C. Ford, a few days ago, at Olney, on the Second street road, some five miles from this city. The farm contains about 105 acres, and lies handsomely, and perhaps equally on either side of the turnpike, and certainly gives evidence throughout, of careful, systematical, and successful cultivation. It is indeed a beautiful spot, and at this surpassingly delightful season of the year, the great abundance of trees of every kind, with which the homestead is surrounded; the rich foliage of the neighboring forests, and the fields of wheat and grass on the farm, all combine to mark it as one of those blessings meant, by a kind Providence, to be "richly enjoyed." We were particularly pleased with the garden and the green house, combining as they do, so practically the useful with the beautiful and the tasteful. The fruit trees look healthy and promise an abundance,—both standards and espaliers. The Seckel pear trees have a remarkably fine appearance, and confirm the observation frequently made within the last year or two, that this tree seems to be recovering from the threat of extermination that for a while, hung over it. The wheat and the grass are fine. Guano has been used, evidently with great success, on both. We hardly remember, ever to have seen at this time of the year, a more luxuriant promise of wheat, than in the fields at Olney; and we could not help wishing while viewing them and the grass, for an opportunity to give our friend a chase through them, by and by, with the cradle and the scythe. Poudrette was applied to the corn at planting, last spring: its effect, was all that could be desired:—this season, Guano also was used at planting, and if it should operate on the corn, as it is operating on the grass and wheat, it will be a pleasure to do the husking.

The whole country is magnificent. How richly may its privileges and its beauties be appreciated, by those whose enterprise and industry and labour, have augmented the general good! and how are they multiplied to those whose minds are properly disciplined, and whose taste and liberality have aided in elevating the common tone of feeling, and standard of enjoyment,

---

A LIST of Premiums offered by the Agricultural Society of New Castle County, at the Fall Exhibition, to be held on the 16th of Ninth month next, at Wilmington, came to hand just as we were going to press, too late for this number. It shall appear in our next.

WE have not been able to keep up our supply of Poudrette, with the demand. As the season for corn planting is now pretty much over, we shall have plenty of it soon, for those who incline to use it on potatoes, or around the corn, after it is up. In this case it should be covered from the sun, not left on the surface of the ground.

THOMAS CROFT, of Wilkesbarre, will accept our thanks for several copies of his pamphlet on the *Potatoe disease*, and *Remedy for it*. He has thrown within small compass, a variety of important facts in relation to this matter.

A. B. ALLEN, of New York, has published an extended catalogue of his Horticultural and Agricultural Implements and Tools—Garden and field seeds—Fruit trees, and domestic animals. He has a large collection on sale at his Ware-house. His catalogue has been received.

THE quantity of rain which fell in the 4th month, 1846, was ....2.11 inches.

Penn. Hospital, 5th mo. 1st.

IT is stated in the Ohio Cultivator, by Isabella Innis, of Franklin County, Ohio, that her dairy for the year 1845, consisted of ten cows, and besides that consumed by the family, she made 1388 lbs. of butter; most of which she sold in Columbus herself at 12½ cents per pound, and performed most of the labour with her own hands.

FINE Strawberries from Baltimore, are in our market this day. Price fifty cents a box.

The list of Premiums of our Agricultural Society, did not come to hand in time for this number.

Our enterprising gardeners in the South—from the vicinity of Charleston, and Norfolk were in our market on the 5th inst., with fine green peas. On the 8th we had bushels of them, from 25 to 40 cents a half peck. Their's, is, indeed a genial clime, which enables them to anticipate us at least a fortnight in their early vegetables.

A few days ago, we took a turn through the large Agricultural Warehouse of D. O. Prouty, in this city. His advertisement is found in the Cabinet. The inspection was highly interesting, and conclusively showed the great improvement made in almost every article used on the farm, since first the editor sweat out his muscular energies in their handling. Lightness, combined with strength and good workmanship as well as reasonableness of price, mark these various articles. No farmer ought to use poor implements. Good ones are the cheapest, and save the bone and sinew of man and beast.

☞ SHORT ADVERTISEMENTS,

The subject matter of which, may correspond with the agricultural character of this paper, will be inserted at the rate of one dollar for each insertion of ten lines or less; and so in proportion for each additional line. Payment in advance.

Agricultural Implement & Seed Warehouse,

No. 194½ *Market Street, Philadelphia.*

For sale as above. Cultivators from $3 50 to $5 50 each; Cultivator Ploughs for working among corn, potatoes, roots of every kind, digging potatoes, &c., &c.; Horse Rakes; Centre-Draught Ploughs for 1, 2, 3 or 4 horses; Cutting Boxes in great variety; Corn Shellers; Grain Fans; Grain Cradles of the best make; Scythes, Snaths, Scythe stones, Rifles, Grass Hooks; improved Barrel Churns, Cheese presses, &c., &c. Garden and Flower Seeds of all kinds, for sale at wholesale and retail, by D. O. PROUTY.

March 15—tf.

Agency for the Purchase & Sale of

IMPROVED BREEDS OF CATTLE & SHEEP.

The subscriber takes this method of informing his friends and the public, that he will attend to the purchase and sale of the improved breeds of cattle, sheep, &c., for a reasonable commission. All letters post paid, addressed to him at Philadelphia, will be attended to without delay. AARON CLEMENT.

Jan. 15th, 1846.

COATES' SEED STORE,

OF MORE THAN FORTY YEARS STANDING,

Where may constantly be had

Clover, Timothy, Orchard, Herd,

AND OTHER

GRASS SEEDS,

TOGETHER WITH A COMPLETE ASSORTMENT OF

GARDEN SEEDS,

Of the finest Quality and best Varieties,

JOS. P. H. COATES.

No. 49, *Market st., Philada.*

PHILADELPHIA

AGRICULTURAL WAREHOUSE,

No. 291 *Market Street, North side, between Seventh and Eighth Streets, Philadelphia.*

Thomas Furber has just received from Worcester, Massachusetts, an assortment of Ruggles, Nourse and Mason's improved Eagle, Subsoil and other Ploughs, which have been so much approved by the principal Agricultural Societies in New England the several last years; also Bennett's Cultivators and Stevens' Self-Feeding Hay and Straw Cutter, a late and very valuable improvement in that kind of implement; Grain Cradles, &c.; an assortment of Ruggles, Nourse and Mason's Self-Sharpening Ploughs of the form and model of those above named, are daily expected. T. F. has and will constantly keep a large assortment of Farming Implements, as Fan Mills, Straw and Hay Cutters, Corn Shellers, Grain Cradles, Scythes, &c., together with Garden Tools of all kinds.

May 15th, 1846. 1 yr.

NEW

Horticultural and Agricultural Ware-house,

84 *Chesnut Street below Third, South side.*

The subscriber has for the better accommodation of his customers, opened the above ware-house, with a large stock of Garden and Field Seeds, crop of 1845. Implements and Books on Gardening and Farming; he calls the particular attention of farmers to his pure stock of Sweede Turnips, Field Carrots, Beets and Parsnips, Pruning Shears, Saws and Knives.

March 14th, 1846.—1y. R. BUIST.

SEED STORE,

No. 23 Market Street, Philadelphia.

The subscriber keeps constantly a supply of White and Red Clover, and other grass seeds; fresh Perennial Rye-grass, and Lucerne seed. Field seeds, consisting of choice Spring Wheat, Barley, Potatoe Oats, Northern and other seed-corn. Aso, in season, Fruit and Shade Trees. Garden and Bird seeds generally. Guano in parcels to suit purchasers.

M. S. POWELL.

Philad., Feb., 1846. tf.

We keep on hand at this office, and will supply our friends with Agricultural works generally. Among which are

THE FARMER'S ENCYCLOPEDIA, full-bound in leather;—Price	$3 50
YOUATT ON THE HORSE, with J. S. Skinner's very valuable Additions;	2 00
BRIDGEMAN'S GARDENER'S ASSISTANT;	2 00
THE AMERICAN POULTRY BOOK;	37½
THE FARMER'S LAND MEASURER;	37½
DANA'S MUCK MANUAL;	50
Complete sets of the FARMERS' CABINET, half-bound, 9 vols.	7 50
DOWNING'S Landscape Gardening,	3 50
Downing's Fruits and Fruit Trees of America,	1 50
SKINNER'S Every Man his own Farrier,	50
AMERICAN Poulterer's Companion,	1 25
BOUSSINGAULT'S RURAL ECONOMY,	1 50
FARMERS' & EMIGRANTS' HAND-BOOK,	1 00
MORRELL'S AMERICAN SHEPHERD,	1 00
STABLE ECONOMY,	1 00
BEVAN on the HONEY BEE,	31¼
BUISTS' ROSE MANUAL,	75
SKINNER'S CATTLE & SHEEP DOCTOR,	50
AMERICAN FARRIER,	50
THE FARMER'S MINE,	75
HOARE ON THE VINE,	62½
HANNAM'S Economy of Waste Manures,	25
LIEBIG'S AGRICULTURAL CHEMISTRY,	25
" ANIMAL CHEMISTRY,	25
" FAMILIAR LETTERS,	12½

As well as his larger works on Chemistry and Agriculture.

Subscriptions received for Colman's Agricultural Tour—or single numbers sold.

☞ We are prepared to bind books to order.

GUANO.

Twenty-five tons first quality Ichaboe Guano, in bags or barrels, for sale in lots to suit purchasers, by

S. & J. J. ALLEN & CO.,
No. 7 South Wharves, 2nd Oil Store below Market street, Philadelphia.

October 15th, 1845. tf.

Poudrette.

A valuable manure—of the best quality, prepared in Philadelphia, for sale at the office of the Farmers' Cabinet, No. 50, North Fourth Street, or at the manufactory, near the Penitentiary on Coates' street. Present price, for seven barrels or more, $1 75 per barrel, containing four bushels each. Any number of barrels less than seven, $2 each, or thirty-five cents a bushel. Orders from a distance, enclosing the cash, with cost of porterage, will be promptly attended to, by carefully delivering the barrels on board of such conveyance as may be designated. The results on corn and wheat have been generally very satisfactory. Farmers to the south and in the interior, both of this State and of New Jersey, are invited to try it.

JOSIAH TATUM.

CONTENTS OF THIS NUMBER.

	Page
Montgolfier's Hydraulic Ram for raising water,	297
On Manure,	298
Indian Rubber Tree,	300
Dead Animals.—Anecdote of a Rose,	301
Prospects in Virginia for new Settlers,	302
Fruits.—Hay and Fodder Crops,	305
James Gowen's System of Farming,	306
Newcastle County Agricultural Society Report,	307
Examples of Improvement,	309
Salt—a Fertilizer,	311
Cornwall and the Land's End.—Premiums of Pa. Horticultural Society.—To cook Spinach,	313
The Crocus.—The Grape Vine,	316
Johnny Appleseed,	317
Gurneyism.—Cultivation of Fruit,	318
Maple Sugar,	319
American Institute—Farmers' Club—Indian Corn,	320
Yellows in Peach Trees,	322
Asparagus.—Cultivation of the Hop,	323
Cabbage Sprouts.—Washings of our Streets,	325
Editorial Notices.	326

THE FARMERS' CABINET,

IS PUBLISHED MONTHLY BY

JOSIAH TATUM No. 50 NORTH FOURTH STREET, PHILADELPHIA.

It is issued on the fifteenth of every month, in numbers of 32 octavo pages each. The subjects will be illustrated by engravings, when they can be appropriately introduced.

Terms.—One dollar per annum, or five dollars for seven copies—*payable in advance.*

All subscriptions must commence at the *beginning* of a volume. Having lately struck off a new edition of one or two of the former numbers, which had become exhausted, we are now able to supply, to a limited extent, any of the back volumes. They may be had at one dollar each, in numbers, or one dollar twenty-five cents half-bound and lettered.

For six dollars paid in advance, a *complete set* of the work will be furnished in numbers, including the tenth volume. The whole can thus readily be forwarded by mail. For twenty-five cents additional, per volume, the work may be obtained neatly *half-bound and lettered.* Copies returned to the office of publication, will also be bound upon the same terms.

By the decision of the Post Master General, the "Cabinet," is subject only to newspaper postage. To any Post office within thirty miles of Philadelphia, they will go free of charge.

Joseph Rakestraw, Printer.